

* UMASS/AMHERST *



312066 0308 0386 3

**FIVE COLLEGE
DEPOSITORY**



UNIVERSITY OF MASSACHUSETTS
LIBRARY

SPECIAL COLLECTIONS
& ARCHIVES

LIBRARY

UNIVERSITY OF
MASSACHUSETTS
AMHERST, MASS.

THE

GENESEE FARMER:

A MONTHLY JOURNAL DEVOTED TO

AGRICULTURE & HORTICULTURE,

DOMESTIC AND RURAL ECONOMY.

NUMEROUS ENGRAVINGS OF

FARM BUILDINGS, IMPLEMENTS, DOMESTIC ANIMALS

FRUITS, FLOWERS, SHRUBS, &c.

ESTABLISHED IN 1831.

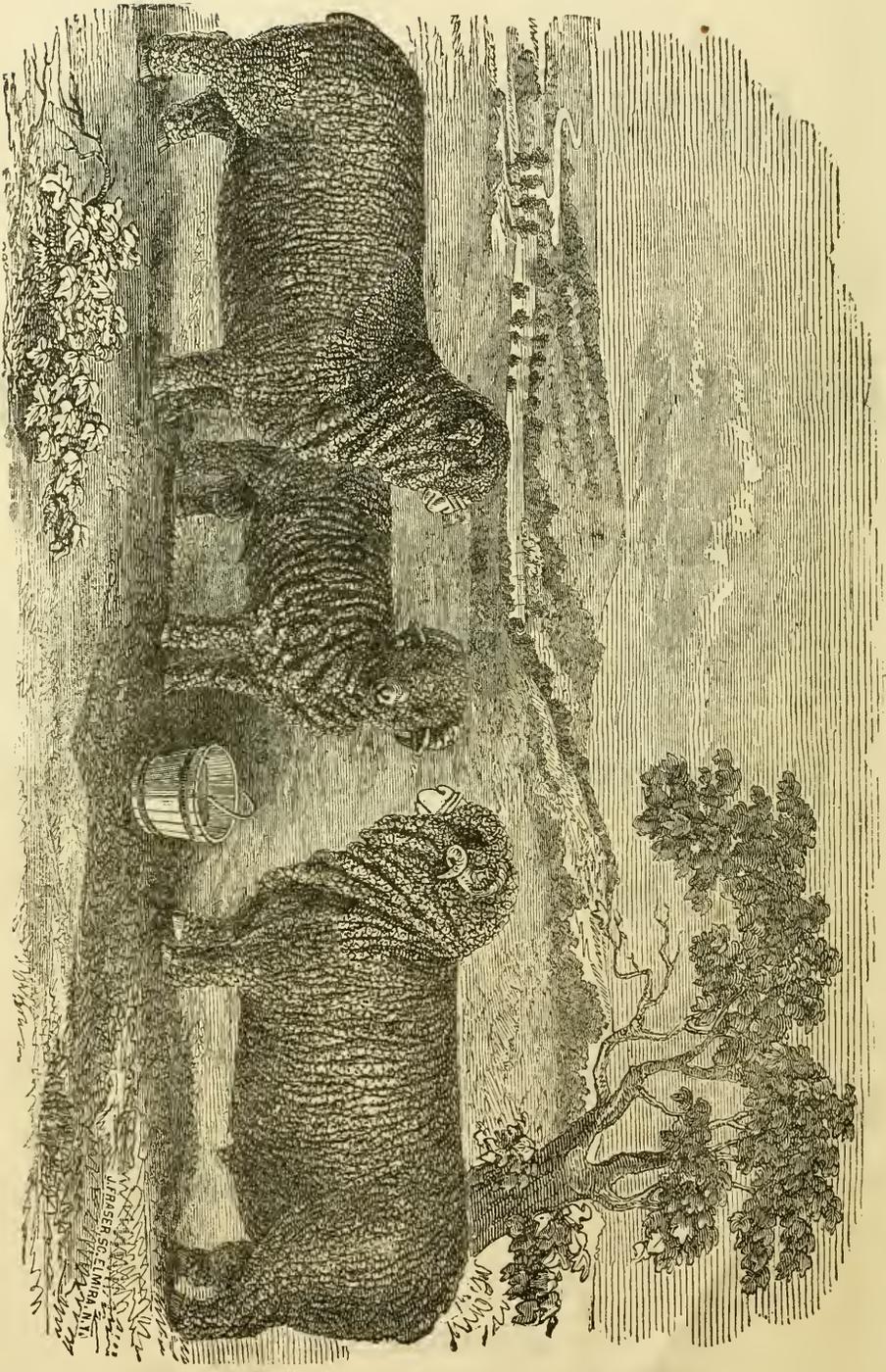
VOLUME XXI., SECOND SERIES.—1860.

ROCHESTER, N. Y.:

JOSEPH HARRIS, PUBLISHER AND PROPRIETOR,

TALMAN BLOCK, BUFFALO STREET.

1860.



GROUP OF FRENCH MERINO SHEEP.

INDEX TO VOLUME XXI.

A		
About trees and country life.....	348	
Acacia, Raspberry Jam.....	231	
Acres, a large yield for two.....	42	116
Affairs in Iowa.....	178	
Agriculture and women.....	376	
— English.....	289	
— shall it be taught in our common schools?.....	150	216
Agricultural discussions.....	334	
— exhibitions list of.....	287	286
— Fair State, Illinois.....	298	
— Iowa.....	332	
— Michigan.....	332	
— New Hampshire.....	298	
— New Jersey.....	332	
— New York.....	331	
— Ohio.....	331	
— Provincial (C. W.).....	317	
— United States.....	319	
— statistics of Canada.....	201	
— papers as premiums.....	318	
— Horace Greeley on.....	278	
— influence of.....	15	
Air drains.....	179	
Alpacas in Australia.....	111	
American lotus as a substitute for the potato.....	309	
— Pomological Society.....	313	
— wine.....	155	
Amusements and recreations for farmers and their families.....	56	116
Animal food and bread.....	368	
Animals, do they consume food in proportion to their live weight.....	169	203
— look to the chests of your.....	300	
— rationale of chewing the cud in ruminating.....	79	
Apple, Baldwin.....	186	
— King of Tompkins county.....	92	
— lady.....	125	
— trees at the west, injury to.....	62	
— around the farm.....	59	
— culture of dwarf pear and.....	354	
— dwarf.....	312	
— insect eggs on the leaves of.....	123	
— renovating old.....	153	188
— unfruitful.....	255	
Apples, Canadian, in England.....	282	
— best six varieties of, for market purposes.....	59	157
— for feeding.....	183	
— keeping.....	252	
— list of, which promise well.....	313	
— would it be profitable to raise sweet, for feeding cattle and swine?.....	50	
Ashes, coal, as manure.....	107	
— selling.....	206	
Ayrshires as milkers.....	111	
— cows, yield of milk from.....	270	
B		
Bacon beetle.....	109	
— English.....	15	
— how to cure.....	47	82
— singed.....	45	47
Bark-louse, sure remedies for.....	95	218
Barley, cultivation of.....	137	
— skinless.....	270	
— soil best adapted to.....	188	
— steeping before sowing.....	77	
— why, so often, fails in New York.....	77	
— winter.....	235	246
Barn, design for complete farm-house and.....	272	
— small farm-house and.....	25	
Bates, Thomas, sketch of the life of.....	12	
Beef, curing, for drying.....	82	
Beets, kind of, to plant.....	122	
Bees, feeding in spring.....	117	
— hiving, management of, etc.....	278	
Bees, hunting wild.....	57	
— stealing.....	365	
— transporting.....	205	
Beans and Indian corn for cows.....	15	46
— California prolific.....	156	
— how to plant.....	151	
— feeding, to milch cows.....	118	
— profitable to raise white.....	138	
Berberry, or barberry.....	96	
Best food for laying fowls.....	80	116
Bed-room decoration.....	93	
Bird's-foot trefoil.....	268	
Birds, yellow, vs. the midge.....	44	
Blackberries.....	59	
— list of, which promise well.....	313	
Bianching celery.....	312	
— with charcoal.....	220	
— sawdust.....	2-3	
Black Hawks the best roasters.....	205	
Bloody murrain.....	206	
Books, new.....	96	161
— 193, 226, 287, 320, 355		
Bones as a fertilizer.....	41	105
— for grape vines.....	121	147
Breadstuffs, on.....	113	147
British Yeoman, the hunting-horse.....	91	
Brieks about melons.....	220	
Breeding, on cross.....	337	
— or raising farm stock.....	78	116
Broccoli, white sprouting.....	64	
Buckwheat straw injurious to young pigs.....	286	
Budded stocks.....	255	
Budding the pear on thorn.....	255	
— or grafting grape vines.....	63	
Bug-eaten peas.....	296	
Bug, the cucumber striped.....	218	
— the potato.....	341	354
Bugs and cucumbers.....	176	
— the battle of the.....	251	
Butter making.....	274	
— hints on.....	178	
— in winter.....	93	
— Scotch.....	17	
— taste of turnips in.....	26	
— white specks in.....	55	
Buildings for a small farm.....	83	
— a large farm.....	82	
C		
Cabbages, best time for transplanting.....	151	
— where to sow.....	122	
Calves, big.....	246	
— cure for scours in.....	362	
— more good.....	303	
— scours in.....	272	
— rearing.....	19	110
— selecting, for.....	48	
— whinnying.....	44	
Canada thistles.....	219	
Cantelupes, extra qualities of.....	156	
Carrots, best mode of raising, and their value for stock.....	85	
— best variety for garden culture.....	122	
— cleaning.....	177	
— early short-horn.....	110	151
— oats sown with.....	146	
— vs. parsneps.....	224	
Cashmere goats in Kentucky.....	271	
— value of.....	17	
Cattle, choice of a breed of.....	240	
— best breeds of.....	160	
— cooking food for.....	362	
— disease caused by immature food.....	270	
— in Massachusetts.....	222	
— the.....	158	224
— feeding.....	51	
— how to foretell the sex of the young of neat.....	246	
— onions tor.....	271	
— proper form and shape of.....	20	20
— rack, good.....	19	
Cattle, remedy for weak eyes in.....	205	
— rules for judging fat.....	264	
— salt for working.....	309	366
— stalls, sparr'd floors for.....	77	
— to kill vermin on, or fowls.....	205	
— weak eyes in.....	367	
— wintering.....	204	
Cedars, when and how to transplant white.....	90	
Celery, blanching.....	312	
— with charcoal.....	226	
— sawdust.....	2-3	
Charcoal on old orchard land.....	219	
Cheap and speedy way to set a grass plat.....	155	
— apparatus for giving salt to sheep.....	205	
Cheese, American and English methods of making, compared.....	265	
— Herkimer county.....	265	
— for England.....	298	
Cherries.....	89	
— best varieties of, for family use and market.....	240	
— how to preserve winter.....	156	
— in California.....	281	
— seedling.....	373	
Chestnut trees for groves.....	374	
Chicken-lise, how to get rid of.....	210	
Chufa, or earth almond.....	125	
Clover, Alsike.....	146	
— amount of plaster in.....	243	
Coal ashes as a manure.....	107	
Colt cured of a rupture.....	184	
Composts, preparation of.....	11	
Corn and beans for milch cows.....	15	
— and potatoes.....	149	
— applying manure to.....	111	
— boiled, for hogs and stock.....	300	
— cribs, keeping rats from.....	341	368
— culture of.....	137	
— grinding, too fine.....	246	306
— how it shrinks.....	17	
— in stumpy fields.....	146	
— is it best to hi l, or not? 51, 145, 176, 289		
— mos profitable manure for.....	137	
— not injured by late spring frosts.....	141	
— plaster for.....	137	
— potatoes planted with.....	43	
— saving.....	333	
— seed.....	48	110
— copperas for.....	110	137
— soaking, in chemical solutions.....	224	
— soils best adapted to.....	334	
— time of planting.....	146	
— proper method of culture of, on different varieties of.....	334	
— sweet.....	151	
— best varieties of.....	125	
— value of, as a farm crop.....	334	
Cottage, a country.....	316	
— a Tudor.....	342	
Cottages and villas, new American style for.....	119	
Cotton in Illinois.....	42	
— seed cake.....	299	
Cow, large.....	77	
Cows, Ayrshire, yield of milk from.....	111	
— can not hold back their milk.....	146	332
— dairy, good vs. poor.....	172	
— feeding turnips to.....	44	300
— milk, beans or corn for.....	15	46
— feeding, to.....	118	
— salt for.....	44	
— tomatoes for.....	1-6	
— spaying.....	17	
— advantages of.....	111	
— wintering.....	17	
Cream, how to raise.....	24	
Cranberries and their culture.....	155	
Cranberry culture.....	23	
— high-bush.....	123	

Crops, best, for an old orchard sod, . . .	96	Fattening sheep in winter,	48, 329	Grass and irrigation,	366
— in Europe,	304	— turkeys,	3-3	— how shall we stock the ground with, . . .	277
— in Ireland,	192	— poultry,	179	— Hungarian, injurious to horses,	77
— notes on the, in England,	319	— feeding beans to milch cows,	118	— experiments with,	378
— which enrich the soil,	267	— cats and swine, would it be profitable to raise sweet apples for?	50	— land, fall feeding beneficial to,	174
Cucumbers and bugs,	176	— setting,	26, 310	— plat, cheap and speedily way to set a, . . .	155
— melons,	151	— with the top down,	243	— sowing timothy or herds,	34
— desirable varieties of,	125	Fences, board,	44	— the meadow soft,	129
Cucumber, large,	251	Fennyreek,	125	Greens,	190
— striped bug,	218	Fig, the,	124	Grinding corn too fine,	246, 370
Cultivation of flowers,	87	Fir, Smith's spruce,	31	Guano, one application of, sufficient, . . .	47
Curculio r medy, the,	157	Flax, soil best adapted to,	189	— for grapes,	374
Cure for ringbone,	22	Floors, sparred, for cattle,	77	— when introduced into England,	43
Currant,	89, 313	Flowers, camphor for,	315	Guano, nitrates in phosphatic,	268
— best varieties for market and family use,	250	— cultivation of,	87	Gypsum,	228
— cultivation of black, for wine in France,	372	— ornament for dried,	376		
Cut and crushed food for horses,	43	— preservation of cut,	338	H	
D		Fodder, Chinese sugar cane for,	177	Hams, Westphalian, how to cure,	15
Dahlia,	283, 333	— scarcity of,	42	Harrow, Smith's web,	16
Dairies, a day among the,	265	Food, cattle disease caused by immature,	270	Hawthorn, the,	41
— and dairying,	274	— for cattle, cooking,	362	Hay for sheep, weight of,	310
Dairy, a profitable,	211	— value of manure from different kinds of,	143	— how much, will keep a horse,	77
Dairying on grain farms,	297	— what amount of, is required by a hard-working man?	379	— the Shakers unload,	3 0
— vs. grain growing,	304	Fowls, best breeds of,	81	— making	215
Daisy, ox-eye, how to get rid of,	224	— food for laying,	80, 116	— marsh, will it pay to secure it?	76
Day in a pear orchard,	311	— how to attain desired points of excellence in,	22	— substitutes for,	53
Discussions at the N. Y. State Fair,	334	— game,	112	Heaves, cure for, in horses,	47
Disease, idleness a cause of,	316	— lice on,	180	Heavy rain storm in Ohio,	179
Dogs and bell sheep,	205	— their importance, management, etc, . . .	205	Hedges, English hawthorn,	29
Dokeys, Diclens on,	368	— to kill vermin on,	205	— osage orange,	45
Dorking fowl, the,	75	Frosts, corn not injured by late spring, . . .	141	Heifers, oil-cake for,	109
Draining machine, mole,	180	Fruit, best, for market purposes,	59	— precocious,	279
Drains, air,	179	— culture in the Ohio valley,	219	Heliotropes and their culture,	30
— mole,	175	— prospects of,	27	Hemp in Minnesota,	333
Draught-bars, or whiffletrees,	76	— Growers' Society of Western New York,	60, 248, 345	Hens eating their eggs,	174
Duck, musk, something about the	306	— growing in northern Canada,	281	— feeding, in winter	17
E		— trees, etc., best protective of,	60	Hibiscus rosa sinensis,	122
Education, the importance of a good, to farmers,	26	— grain among,	373	Hints on butter making,	178
Eggs, hens eating their,	174	— labels for,	29	— to housewives,	73
— insect on the leaves of apple trees, . . .	123	— lime for,	123	Hogs, black not subject to mange,	251
— of domestic fowls, how to detect the sex of,	149	— in Michigan,	374	— Chester county white,	204, 213
Egg plant,	151	— neglect of the,	280	— fattening,	307
— long purple,	125	— profits of,	205	— best method of raising and,	33
Elm, weeping mountain,	32	— what is the proper age for planting,	62	— early,	310
English plows and plowing,	207	Fuchsia, the mode of planting and training,	65	— good,	53
Evergreens,	187	Fuel, comparative value of different kinds of,	20	— peas for,	138
Eyes, remedy for film on the, of horses and cattle,	205	G		Horse, how much hay will keep a,	77
F		Garden, Horace Williams,	234	— hunting, British Yeoman,	21
Farm, apple trees around the,	59	— the flower,	151	— longevity of the,	145
— buildings suitable to a large,	82	Garden ng, experimental,	123, 156	— how, Springfield,	208
— a small,	83	— plat, shelter for an early,	315	Horoman, how to become a good,	274
— house, design for a complete,	242	— in the,	151	Horses beds, sand for,	271
— a small,	172	Germination of seeds,	153	— breeds of,	267
— and barn,	275	Gherkin, West India,	125	— broken winded,	220
— stock, breeding and rearing,	78,	Glass pans for milk,	206	— cut and crushed food for,	43
— visits,	244	Goats, Cashmere, in Kentucky,	271	— cure for heaves in,	47
James O. Sheldon's,	233	— value of,	17	— food for,	44
John Johnston's,	234	Gooseberry, in large,	143	— Hungarian grass injurious to,	77
Joseph Wright's,	235	— worm,	145	— Morgan,	96
John Walton's—a story,	369	Grafting grape vines,	63, 373	— remedy for the eyes of,	205
— Mr. Torr's, England,	241	— seedling apple stocks,	129	— slobbering in,	271
— Thomas Crisp's, England,	240	— wax,	219	— to remove, from a building on fire, . . .	271
— why young men leave the,	77	— how to make, and to cut and prune scions,	129	— walking,	26, 118
Farmer, every, should have his own workshop,	111	Grape, culture and diseases of the,	314	Horticultural Society, Gen. Valley, 91, 247	
Farmers and their families, recreations and amusements for,	56, 116	— mildew in France,	312	— Massachusetts, Transactions of the, for 1859,	89
— clubs,	44	— the Delaware,	152, 311	Horticulture, scattered notes on,	373
— good prospects for the,	277	— Diana,	312	— the horrors of,	375
— must raise more roots,	178	— Hartford Prolific,	311	Housekeepers, young,	190
— should produce their own fertilizers, . . .	178	— Logan,	311	Houses, color of—winter aspect,	90
— the importance of a good education to,	26	— Massachusetts White,	99	How deep should we plow?	86, 177
— value of marsh muck to light land, . . .	114	— Rebecca,	32, 311	— to make extra branches grow on pear trees,	90
Farming in Minn. sota,	304	— To Kalon,	312	Hunting wild bees,	57
— Missouri,	45	— vine, barren,	354	Hybrid perpetual roses,	154
Farms, dairying on grain,	297	— vines, bones for,	121, 147		
— large,	45	Grapes,	61, 89, 314	I	
— or small, which are the most profitable?	84	— a few words on,	311	Ice-houses,	333
— Texan sheep,	17	— guano for,	374	Idleness a cause of disease,	316
— water on stock,	271	— how to keep,	151	Improved stock in California,	174
Fast people,	26	— in California,	340	Inflamed udder, remedy for,	271
Fatten hogs early,	310	— which among the new varieties of, have proved to be adapted to our climate?	343	Influence of agricultural papers,	15
Fattening hogs,	3 7			Injury to apple trees at the west,	62
— best method of raising and,	52			Insect eggs on the leaves of apple trees, . . .	123

L

Labels for fruit trees, 29
 Labor, suggestions on mental and physical, 369
 Ladies, write for the Farmer, 319
 Land, charcoal on old orchard, 219
 — cheap, in Connecticut, 367
 — for wheat can be made too fine, 205
 — new sandy, 305
 — prairie, breaking, 300
 — deep plowing injurious on, 117
 — wood, 55, 116
 Layers, test, 506
 Lambs, care of, 43, 109
 Leicesters vs. Southdowns, 266
 Letter from John Johnston, 203
 — Utah Territory, 216
 Lettuce, earliest sown, the best, 122
 Lice, chicken, how to get rid of, 210
 — on fowls, 180
 Lime and wheat, 363
 — as a manure, 46
 — for fruit trees, 123
 — plowed in, 161
 Lindley, Dr. John, sketch of the life of, 173
 Locust trees, 189
 Lotus, American, as a substitute for the potato, 309
 Lucerne, 12, 79, 268
 — excellent for fodder, 10
 Lupine, white, 267

M

Mange, black hogs not subject to, 271
 Mangel-wurzel, how to prepare the seed of, 138
 Maine items, 276, 333
 Manure, applying to corn, 111
 — best for potatoes, 138
 — coal ashes as a, 107
 — drawing out, in winter, 67
 — for potatoes, tobacco stalks a good, 205
 — spring wheat, 129
 — lime as a, 46
 — most profitable for corn, 137
 — value of, depends on the food, not on the animal, 202
 — from different kinds of food, 143
 Manures, artificial, experiments with, 363
 — unhealthiness of, 77
 Manuring, surface, 74, 112, 206
 — the wheat crop, 19
 Maps of Progressive Primaries, 170
 Marking sheep, 111, 176, 181
 Martyna, 156
 Maxims from the journal of a Canadian farmer, 81
 Meat, high price of, in England, 266
 Medicago lupulina, 208
 Melon, apple pie, 165
 Melons and cucumbers, 151
 — bricks about, 220
 Midge, the wheat, 19, 46, 238
 Mildew, grape, in France, 312
 — sulphur for, 374
 Milk becoming thick while sweet, 271
 — cows can not hold back their, 146, 320
 — glass pats for, 206
 — taste of turnips in, 26, 113
 — yield of, from Ayrshire cows, 270
 Milkers, Ayrshires as, 111
 — Durham cows good, 378
 Milking, importance of clean, 44
 Muck for compost, 2-6
 — value of, to light land farmers, 114
 — nature and, 9, 46
 Murraïn, bloody, 206
 Mask duck, something about the, 306
 Mustard, mammoth, 125

N

Nature and value of pent and muck, 9, 46
 Nature's mode, 179
 Nectarine, the Stanwick, 185
 New sandy land, 268
 Nitrates in phosphatic guanos, 269
 Notes from Canada, 246, 277, 305
 — West, 160, 209
 — "Down East," 309
 — for the month, 137, 276, 304
 — Maine, 373
 — of an European tour, 189
 — on fruits around Cincinnati, 250
 — horticulture, scattered, 373
 — the April number of the Genesee Farmer, 147

Notes on the crops, 319
 — December and January numbers of the Genesee Farmer, 46, 79
 — February and March numbers of the Genesee Farmer, 116
 — peach, 188
 — weather, 34, 66, 94, 127, 159, 222, 253, 284, 313, 352
 Nutrition, table of, 361
 Nutritive value of different foods, 261

O

Oats, experiments with artificial manures on, 363
 — heavy, 44
 — sown with carrots, 146
 — thick or thin seeding of, 206
 Oil cake for helters, 109
 Onion maggot, 146
 Onions, and how to raise them, 92
 — seed, how, may be sown, 122
 — for cattle, 271
 Orchard, a day in a year, 311
 — culture, 8-5
 — land, charcoal on old, 219
 — sod, best crop for an old, 96
 Orchards, best method of renovating old, 58
 — eropping dwarf pear, 96
 — neglect of, 315
 — what is the best manure for preparing ground for, 62
 Oxen, salt for working, 309, 366
 Ox, how to throw an, 367

P

Parsley, 122
 — California curled, 125
 Parsneps, best variety of, 19, 122
 — profitable roots for cattle, 19
 Pans, glass, for milk, 206
 Pasture land, streams in, 177
 Pastures, changing, 179
 — plowing up, 18
 — renovating, 214
 Peaches, to make sure of a crop of, 283
 Peach trees, proper time for budding, 225
 Peacock, the, 148
 Pear, Bartlett, 29
 — culture and diseases, 314
 — of dwarf, and apple trees, 354
 — Duchesse d'Angouleme, 350
 — dwarf, is it a humbug?, 60
 — trees, dwarf, that have been neglected, 178
 — and standard, the adaptation of, to different soils in our climate, 345
 — treatment of, 57
 — to make extra branches grow on, 90
 Pears, 93, 314
 — best six varieties of, for market, 59
 — dwarf, best to plant, 250
 — granting that the Louise Bonne de Jersey and Duchesse d'Angouleme are the best two varieties of, which variety stands third for profitable cultivation on the quince? 346
 Peas and potatoes together, 44
 — best varieties of, 322
 — bug-eaten, 206
 — for hogs, 132
 — planting, how to prepare, 189
 — Japan, 341, 379
 — sowing in the autumn, 46
 Peat and muck, nature and value of, 9, 46
 — compost, 169
 Phygellus c. pennis, 186
 Pig, large, 224
 — largest on record, 224
 Pigs, buckwheat straw injurious to young, 300
 — great fecundity of, 212
 Plantain, to exterminate, 283
 Planting trees, 206
 Plants to an acre, 72
 Plaster and salt together, 111, 147
 — amount of in clover, 243
 — for grasses, 128
 — timothy, 46
 — vegetables, 44
 — on oats, 363
 — sowing, 110
 Plow, Pawkes' steam, 17
 — how deep should we? 86, 177
 Plowing, a good creed on, 295
 — deep, injurious on prairie soils, 117, 147
 — up old pastures, 18

Plows for cutting underdrains, 16
 — English plowing and, 207
 Potato, American lotus as a substitute for the, 300
 — bug, 341, 354
 — convention, 85
 — rot, 219
 Potatoes, 123
 — Bermuda, 20
 — best manure for, 138
 — California, 43
 — Chili, 146
 — fattening stock on, 46
 — in Bermuda, 174
 — California, 179
 — mowing off the tops of diseased, 286
 — planted with corn, 43, 149
 — preserving sweet, 340
 — Prince Albert, 148
 — profits of, 273
 — seedling, 20
 — tobacco stalks good manure for, 205
 — to keep in the cellar, 271
 Posts, setting fence, 26
 — with the top down, 243, 310
 — fence, salt for, 300
 Poultry, fattening, 179
 — guide, 180
 — keeping on a large scale, 275
 — is it profitable?, 210
 Pork fat sows for breeders, 52, 144
 — will it pay to make?, 211
 Progressed pumpkin produced by Professor Puff's Patent Primaries, 24
 Pumpkins, large, 44, 139

R

Rabbits, to prevent from gnawing trees, 68, 91
 Rack, a good cattle, 19
 Radishes, best kinds of, 122
 Raspberries, 318
 — best varieties of, for market, 249
 Raspberry Jam Acacia, 281
 Rats, keeping, from granaries, 333, 344, 365
 — to keep, from cellars, 310
 — grain stacks, 271
 Rearing calves, 19, 110

RECEIPTS, DOMESTIC:

Asparagus, how to cook, 221
 Beds, 190
 Biscuit, fancy, 221
 Blacking stoves, 190
 Blanc mange, calves' feet, 258
 — or creams, froth for, 93
 Bread, steamed Indian, 351
 Burns and scalds, treatment of, 351
 — for, 126
 Cake, coconut, 221
 — coffee, 221
 — cream, 126
 — sponge, 351
 — election, 126
 — frosting for, 351
 — jelly, 126
 — Lucy's delicate, 126
 — lemon, 126
 — mother's, 126
 — pork, 316
 — soda sponge, 126
 — to make, light, 316
 — West Point, 126
 Carps, selecting, 190
 Cruciflower, 221
 Celery sauce for boiled fowls, 283
 Cider, to keep sweet, 351
 Cloth, transparent and waterproof, 126
 Cookies, 126
 — Cynthia's ginger, 126
 Corn, to dry and cook sweet, 221
 Complexion, to whiten the, 316
 Crape, old, 190
 Creams, fancy froth for, 93
 Crullers, 221
 Crumb cloth, 190
 Crumpets, 221
 Crust, pie, 258
 Custard, cream, 93
 Currants, black, 316
 Cutlet, deli ous veal, 26
 Drying unpared peaches, 221
 Egg plant, baked, 283
 — fried or boiled, 283
 Eggs, to beat the whites of, 316
 Flat-irons, to polish, 221
 Floating island, 190

RECEIPTS, DOMESTIC:

Gingerbread, leather,.....	126
— very nice,.....	126
Grease spots,.....	190
Glue,.....	190
Ink stains, to remove,.....	351
Jelly, lemon,.....	93
Jumbles, Jackson's,.....	126
Mangoes,.....	316
Maxim,.....	126
Pickle, onion,.....	376
— plums,.....	316
— ripe tomatoes whole,.....	316
Pie, chicken,.....	351
— crust,.....	283
— dried apple,.....	351
— how to make apple,.....	351
— lemon,.....	221
— pumpkin,.....	126
Potatoes, boiling,.....	351
— to warm,.....	376
Pudding, batter,.....	221
— corn starch, plain,.....	376
— steam,.....	283
Pumpkins, to preserve,.....	221
Red ants in closets, how to get rid of,.....	351
Rhubarb, to preserve,.....	287
Ribbons, to wash,.....	190
Rolls, French,.....	126
Sausages,.....	221, 287
Silk, to clean,.....	221, 283
Soap, to make hard,.....	221
Stores, blacking,.....	190
Tomato preserves,.....	351
Wine, blackberry,.....	221
— currant,.....	221
Recreations and amusements for farmers and their families,.....	56, 116
Red-root, to destroy,.....	225
Red wood, California,.....	256
Reeds, cultivation of,.....	129
Renovating old apple trees,.....	153, 188
— pastures,.....	214
Rhubarb, profits of,.....	206
Rice, upland,.....	253
Ringbone, cure for,.....	22
Road, a model Macadamized,.....	340
Rollers and their uses,.....	103, 147
Rolling snow on wheat fields,.....	17, 46
Roses, hybrid perpetual,.....	154
Rose, spring, of Shanghai,.....	251
Rot in sheep, salve for,.....	22
Ruta bagas, cultivation of,.....	171
Rye,.....	319
— as a green manure,.....	96
— large crop of,.....	299
— instead of oats for feeding, would it be more profitable to raise?.....	51
S	
Salsify, vegetable oyster,.....	151
Salt and plaster together,.....	111, 147
— for fence posts,.....	800
— milch cows,.....	44
— working oxen,.....	309, 366
Scours on calves,.....	271
Scratches, cure for,.....	241
Seed, best time for sowing,.....	151
— change of,.....	333
— corn,.....	48, 110
— flax,.....	184
— germination of,.....	153
Seeding, thick or thin,.....	146, 336
Shade trees,.....	33
Sheep, fattening in winter,.....	48, 329
— cheap apparatus for giving salt to,.....	205
— cost of keeping,.....	111
— dogs and bell,.....	205
— farms, Texan,.....	17
— for wool or mutton,.....	271
— good,.....	273
— profits of keeping,.....	111
— husbandry,.....	337
— in California,.....	366
— is it desirable to increase the breeding of in this State for wool or mutton?.....	335
— marking,.....	111, 176, 181
— raising, profits of,.....	206
— salted water for,.....	45
— salve for foot-rot in,.....	22
— shelter for, in winter,.....	44
— washing, plan for,.....	205
— water for,.....	330
— wool-growing and mutton,.....	334
— — — breeds best adapted to,.....	334
Shelter for an early garden plot,.....	315
Shocking wheat in the harvest field,.....	245
Short-horns in California,.....	206
Skinless barley,.....	270
Soap, recipe for making good hard,.....	181
— suds,.....	188
Soil, advantages of pulverizing the,.....	46
— benefit of keeping the surface mellow,.....	110
— crops which enrich the,.....	267
Soils, best adapted to corn,.....	334
— prairie, deep plowing injurious on,.....	117, 147
— proper method of culture of corn on different varieties of,.....	334
— in our climate, adaptation of standard and dwarf pear trees to different,.....	345
South-downs, at the New York State Fair,.....	331
— vs Leicester, for crossing with Merinos,.....	266
— — — Jonas Webb's,.....	269
Sowing machine, an unpatented,.....	305
— timothy or herds-grass,.....	84
— peas in the autumn,.....	52
Sows, pork fat for breeders,.....	34, 141
Spraying cows,.....	17, 73
Spring work, hints on,.....	157
Spurce, Norway,.....	267
Spurry,.....	267
Squashes, how to plant—soil required for,.....	151
— winter,.....	125
Stanwick nectarine,.....	185
Stephanotis floribunda in fruit,.....	288
Stock at the Fair of the Royal Ag. Society,.....	182, 212
— breeding or raising farm,.....	78, 116, 149
— how to prevent from being unruled,.....	77
— farm, in Canada,.....	242
— farms, water on,.....	271
— improved, in California,.....	174
— value of carrots for,.....	85
— water for,.....	54
Strawberries,.....	89, 217, 313
— best varieties of for market,.....	248
— carrying to a distant market,.....	186
— when and how to plant,.....	217
Strawberry, Wilson's Albany,.....	279
Straw, pea, excellent fodder,.....	177
— buckwheat, injurious to young pigs,.....	300
Streams in pasture land,.....	177
Subsoil's fertility of,.....	45
Sugar cane, Chinese,.....	145
— composition of the,.....	142
— for fodder,.....	177
— sorghum,.....	300
Sulphur for lice on animals,.....	22
— for grape mildew,.....	374
Surface manuring,.....	112, 147, 205
Swine, how to make profitable,.....	145
— improving,.....	206
T	
Tares and vetches, best method of cultivating and feeding out,.....	55
Taste of turnips in butter,.....	26
— — — milk,.....	118
Tea plant, the,.....	300
Tending a threshing machine,.....	146
Thick vs. thin seeding,.....	320, 336
— of oats,.....	206
Thistles, Canada,.....	246
Thoughts for the thoughtful,.....	23
Timothy on the prairies,.....	146
Tire, wide,.....	173
Tobacco stalks good manure for potatoes,.....	205
Tomatoes,.....	123, 125
— an invaluable article of diet,.....	124
— best kinds of,.....	123
— for milch cows,.....	189
— from cuttings,.....	283
Topiary work,.....	120, 147
Tree planting clubs,.....	206
Trees, best, for a country cemetery,.....	86
— evergreen,.....	187
— how to prevent woodpeckers from injuring,.....	213
— locust,.....	189
— machine for transplanting,.....	305
— proper way to plant,.....	206
— seedling,.....	350
— shade, etc.,.....	33
Turkey, domestic, peculiar habits, etc.,.....	343
Turkeys, fattening,.....	333
Turnips,.....	122
— covering in winter,.....	246
— feeding to cows,.....	300
— Swedish, the cultivation of,.....	171
— anbury or club-foot in,.....	76
U	
Udder, inflamed, cure for,.....	271
Underdraining, proper depth of,.....	48
V	
Vetches and tares, best method of cultivating,.....	55
Vetch or tare,.....	209
Vermin on cattle or fowls, to kill,.....	205
Villas and cottages, new American style for,.....	119
Villa, suburban, design for a,.....	301
Visit to Canandaigua,.....	243
W	
Wagon axle,.....	256
— tires,.....	54, 116
Warts, to remove,.....	271
Water for sheep,.....	330
— — — stock,.....	52
— on stock farms,.....	271
Watering cows,.....	17
— pot, improved,.....	186
Watermelon, strawberry,.....	125
Wax, grafting,.....	129, 219
Weather and the crops,.....	223, 246, 254
— — — in Iowa,.....	145
— in Illinois,.....	34
— Maine,.....	338
— Mississippi,.....	34, 66, 94, 127, 159, 222, 253, 284, 318, 352,
— notes on the,.....	191
Web barrow, Smith's,.....	10
Weld or dyer's weed,.....	125
Weight of hay for sheep,.....	313
What I have seen,.....	213
Wheat, are there other crops that could be substituted for, that would enable the farmer to secure equal profits, and preserve his land in better condition?.....	33, 37
— a rough and cloudy surface soil for,.....	1
— Canadian blue stem,.....	23
— crop, manuring the,.....	11
— culture, a few thoughts on,.....	33
— — — of,.....	33
— is it desirable for the farmers of New York to increase the,.....	37
— will it pay? if nay, what will?.....	23
— early, how to get,.....	17
— Early May,.....	23
— fields, rolling snow on,.....	17, 46
— from the north or south, 43, 116, 302, 86	
— in Canada,.....	20
— Kansas,.....	17, 4
— land for, can be made too fine,.....	20
— late sown,.....	50
— Mediterranean,.....	23
— — — White,.....	237, 28
— manure for spring,.....	12
— midge,.....	19, 46, 23
— mulching,.....	33
— of the south,.....	146, 213, 24
— shocking, in the harvest field,.....	24
— Soules,.....	23
— stacking in the field,.....	17
— top-dressings for, in the spring,.....	13
— what depth should be covered,.....	1
— winter, how to prepare the land for,.....	24
— sowing early,.....	24
Where's your proof?.....	30
Why young men leave the farm,.....	7
Will it pay to make pork?.....	21
Wine, American,.....	15
— cultivation of black currants for, in France,.....	37
— making in Transylvania,.....	25
Wines of Italy,.....	25
Winter barley,.....	23
Wintering cattle,.....	30
Wood land,.....	53, 11
Woodpeckers,.....	18
— how to prevent from injuring trees,.....	21
Wool, increasing the weight of,.....	1
— large fleeces of,.....	4
Worm, how to destroy the currant or gooseberry,.....	18
Worm, wire,.....	12
Women and agriculture,.....	37
Woman's occupation,.....	19

INDEX TO CORRESPONDENTS.

A

Bayfield, C. W., 145
 B. C., Amarauth, C. W., 56
 Dams, J. C., Seymour, N. Y., 48, 178
 Farmer's Wife, C. W., 93
 G. H., Waukesha, Wis., 218
 Gentry, W. E., Campbell Co., Ky., 178
 Tenant Farmer, Canada, 177

B

Bailey, H. T., Sheridan, N. Y., 50
 Baller, Francis A., 63
 Bartlett, Levi, Warner, N. H., 47, 80, 116, 147
 Beauchamp, W. M., Skaneateles, N. Y., 145
 Belmont, C. N., Springside, N. Y., 22, 33, 81
 112, 148, 181, 210, 274, 275, 306, 343
 Be sure you're Right, then Go Ahead,
 Marshall, Iowa, 308
 B. B., Pughtown, Pa., 145, 178
 B. Henry, Ohio, 368
 B. H. W., Brighton, Iowa, 178
 Backett, G. E., Belfast, Me., 276, 309, 510
 333, 373
 Bradford, John, Rochester, N. Y., 47, 157
 Broadgeest, J. T., Toronto, C. W., 114
 Bull, W. O., Perth, C. W., 176

C

Carlton, John, Rochester, 375
 C. D., 123
 Christian, J. S., St. Charles, Ill., 181
 C. Franklin, R. M., 245
 C. J. P., Wis., 219
 C. J., Clay, Ohio, 218
 C. P., Mansfield, Ohio, 369
 C. J., Jas., 2-8
 C. W., Fairfax Co., Va., 219

D

D. Gales, N. Y., 310
 D. J., Lorenzo, Chili, Ind., 63
 D. Ambar, Bela, North Chili, 213, 315
 D. W. L., West Medford, Mass., 90, 92

E

E. L., 26

F

F. H. W., Prairie Ridge, Iowa, 145

G

G. G. Arnsley, M., 51
 G. W. S., Wellsboro, Pa., 157

H

H. Hampton, W. C., Mt. Victory, Ohio, 87
 H. Arney, G. E., Lynn, Mass., 26
 H. Lawley, J. B. M., Pa., 19
 H. B., Ohio, 177
 H. Hendrick, L., Sweden, Pa., 367
 H. H. M., Lemon, Pa., 149

Hill, N., Canton, N. Y., 23, 157
 Howe, Wm., North Almond, N. Y., 26
 Howell, John T., Leo, N. C., 51, 57
 Hubbard, J. R., Tioga Co., N. Y., 273
 H. W., Chatham, C. W., 145

I

I. Inman, C., Mich., 145
 I. Irwin, Jno., Jr., Coshocton Co., O., 145

J

J. A. S., Paris, C. W., 177
 J. B. C., Punxsatawney, Pa., 245
 Jenkins, J. K., 41
 J. J. S., 111
 J. K., Vaughan, C. W., 379
 J. M., C. W., 123
 J. N. H., Salina, N. Y., 111
 Johnston, John, near Geneva, N. Y., 203
 J. O., Jr., Philadelphia, Pa., 245, 340
 J. P., 362
 Juliard, Joseph 2d, Bainbridge, N. Y., 54
 J. V. H. C., Manlius, N. Y., 79
 J. W. C., 18

K

K. King, S., Canada, 177
 K. Knapp, Z., Pittston, Pa., 379

L

L. Lee, James A., Cass Co., Mich., 367
 L. N., Windsor, Ohio, 87, 125, 156
 L. W., Ellery, N. Y., 246

M

M. Mackeleau, J., Jr., 245, 246, 277, 305
 M. Matteson, F. M., Middleville, Mich., 84
 M. Michiganian, Muskegon, Mich., 375
 M. Mitchell, Wm. D., Pin Oak, Mo., 85
 M. Monthay, Madison, Eastburn, Ind., 86
 M. Morris, M. H., 188
 M. Mrs. A. J. S., Armada, Mich., 190
 M. Mullins, A. G., Chester's Store, Ky., 51, 63

N

N. Newell, Harriet B., Westport, N. Y., 55
 N. Nichol, D. A. A., Westfield, N. Y., 59, 181
 N. N. S., Genesee Co., N. Y., 218
 N. N. S., Columbia, Tenn., 213, 368
 N. Nye, CUTTS D., Lexington, Mass., 148, 204
 N. Nye, R. G., Galesburg, Ill., 54, 59

O

O. Owen, E., Wyoming, Mich., 154
 O. O. W. T., Elm Tree Farm, Me., 309

P

P. P., Richmond Hill, C. W., 47
 P. P. C. W., 44

Pearson, W. H. H., Piteairn, N. Y., 20
 Peck, S. B., Muskegon, Mich., 309
 Pequod, Bladensburg, Va., 216
 Pierce, W., Ravensburg, O., 56
 Progress, 190

Q

Q. Quinby, M., St. Johnsville, N. Y., 118, 273

R

Randles, J. F., Argyle, N. Y., 123
 Reed, Hiram, Ind., 177
 Reno, Wm., Lawrence Co., Pa., 145, 177
 R. H., Philadelphia, Pa., 21
 R. J. S., Hillsburg, C. W., 118
 Romine, Ed. C., Stockton, N. Y., 184
 R. S. T., Niagara, C. W., 145
 Rus, Abel Y., Rus Corners, Md., 113
 Russell, And., Arnprior, C. W., 282
 R. W. S., Woodstock, C. W., 82, 305

S

S. Seltzer & Valk, New York, 119
 S. Sante, Muskegon, Mich., 366
 S. Sargent, N., Washington City, 210
 S. Sayers, E., Great Salt Lake, U. T., 216
 S. Sharp, S., Jackson, Mich., 48
 S. Sibley, Mrs. A. J., Armada, Mich., 351
 S. Simonds, B. C., Genesee Co., N. Y., 211
 S. Smith, E. E., Erie Co., O., 189
 S. Snyder, W. H., New Jersey, 177
 S. Subscriber, Walton, N. Y., 211
 S. S. W., 244, 276
 S. S. W., Waterloo, N. Y., 305

T

T. Talcott, Jonathan, Rome, N. Y., 73, 150
 T. Tanner, Myron E., Clarkstown, N. Y., 86
 T. Townley, Jno., Monndville, Wis., 19, 115
 T. Tubbs, Nott A., La Salle Co., Ill., 176
 T. Turner, Sam'l B., Quincy, Ill., 117, 354

V

V. Van Doren, White House, N. J., 22
 V. R. C., Oberlin, Ohio, 113

W

W., 50, 158
 W., Penfield, N. Y., 369
 W., Pittston, Pa., 82
 W., Trenton Falls, N. Y., 216
 White, H., Kent Co., C. W., 278
 Wilson, C. C., Newfane, N. Y., 53, 178
 W. R., Cobourg, C. W., 53, 177
 Wright, N., Hornellsville, N. Y., 186

* 180
 †† L. S., Attica, N. Y., 51, 52, 53, 144
 183, 188, 274

THE Genesee Farmer.

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., JANUARY, 1860.

No. 1.

NATURE AND VALUE OF PEAT AND MUCK.

ONE of the most interesting and valuable contributions to agricultural science which has appeared for some time in this country, is Prof. S. W. JOHNSON'S Report to the Connecticut State Agricultural Society, on the Nature and Agricultural Uses of Peat and Muck.*

Thirty-three samples of peat were sent to Prof. JOHNSON, by gentlemen in different parts of the State. These were submitted to chemical analysis, and a circular was issued, asking information in regard to the nature of the deposits, manner of application, and the effects produced by the different peats. The results are embodied in the Report. As might be expected, the composition, mechanical structure, and fertilizing value, of the deposits vary considerably.

The amount of potential ammonia in the chemically dry peat, varies from 0.53 to 4.06 per cent. That is to say, one deposit contained *seven times* as much ammonia as another.

The *average* amount of ammonia, in the thirty-three samples of chemically dry peat, was 2.07 per cent.

Common barn-yard manure seldom contains more than half of one per cent. (0.5) of ammonia; and it is an unusually good manure that contains one per cent. We are safe in assuming that air-dried peat, of average quality, contains twice as much potential ammonia as an average sample of barn-yard manure. Prof. J. institutes a comparison between a good specimen of peat and a well-rotted farm-yard dung of good quality. We have not space for the table, but the peat contains about four times as much ammonia (2.92), three times as much sulphuric acid (0.33), a little more lime (2.43), and more than twice as much magnesia (0.36), as the manure. On the other hand, the manure con-

tains nine times as much potash (0.49), twice as much soda (0.08), fifteen times as much phosphoric acid (0.45), twice as much chlorine (0.02), and three times as much soluble silica (1.68), as the peat. The principal characteristic of peat is its large quantity of organic matter. One ton of air-dried peat contains *five times* as much organic matter as a ton of well-rotted barn-yard manure.

Prof. JOHNSON, in commenting on the analyses of peat and manure, well observes: "We see thus that peat and yard manure are excellently adapted to go together; each supplies the deficiency of the other. We see, also, that peat requires the addition of phosphates (in the shape of bone dust, or phosphatic guano) and of potash (as unleached wood ashes), in order to make it precisely equal in composition to stable manure." A ton of manure contains about 9 lbs. of phosphoric acid and 10 lbs. of potash; a ton of peat a little over half a pound of phosphoric acid, and not quite one pound of potash. A bushel of ashes and 30 lbs. of bone dust would make the ton of peat equal in potash and phosphates to a ton of manure. In other respects, so far as composition is concerned, it is superior to the manure.

Aside from its value in furnishing food for plants, peat has many properties which render it useful in improving the texture and other physical characters of soils. Among them Prof. JOHNSON mentions —

1. *Its remarkable power of absorbing and retaining water, both as a liquid and as vapor:*
2. *Its power of absorbing ammonia:*
3. *Its action in modifying the decay of organic (animal and vegetable) bodies:*
4. *Its effect in promoting the disintegration and solution of mineral matters, (the stony matters of the soil): and*
5. *Its influence on the temperature of the soil.*

1. *Its absorbent power for liquid water* is well known to every farmer who has thrown it up in a pile to season for use. It holds the water like a sponge; and after exposure for a whole summer, is distinctly moist to the feel.

* Reports on Peat, Muck, and Commercial Manures, made to the Connecticut State Agricultural Society in 1857-8. By SAMUEL W. JOHNSON, Chemist to the Society, and Professor of Analytical and Agricultural Chemistry in Yale College. Hartford, Conn.: WILLIAMS & WILEY. 1859.

Its absorbent power for vapor of water is so great that more than once it has happened in Germany, that barns or close sheds filled with dried peat, such as is used for fuel, have been burst by the swelling of the peat in damp weather, occasioned by the absorption of moisture from the air. This power is further shown by the fact that when peat has been kept all summer long in a dry room, thinly spread out to the air, and has become like dry snuff to the feel, it still contains 10, 20, 30, and in some of the specimens I have examined, even 40 per cent. of water. To dry a peat thoroughly, it requires to be exposed for some time to the temperature of boiling water. It is thus plain that no summer heats can dry up a soil which has had a good dressing of this material, for on the one hand, it soaks up and holds the rains that fall upon it, and on the other, it absorbs the vapor of water out of the atmosphere whenever it is moist, as at night and in cloudy weather.

2. *Absorbent power for ammonia.* All soils that deserve to be called fertile, have the property of absorbing and retaining ammonia and the volatile matters which escape from fermenting manures, but light and coarse soils may be deficient in this power. Here again in respect to its absorptive power for ammonia, peat comes to our aid.

Prof. J. here details experiments which show that peat will absorb from one to two per cent. of ammonia.

We observe that the peat which is, naturally, richest in ammonia, absorbs less, relatively, than that which is poor in this substance.

When we consider how small an ingredient of most manures ammonia is, viz.: less than one per cent. in case of stable manure, and how little of it in the shape of guano for instance is usually applied to crops—not more than 40 to 60 lbs. to the acre. (The usual dressings with guano are from 250 to 400 lbs. per acre, and ammonia averages but 15 per cent. of the guano), we at once perceive that an absorptive power of two or even one per cent. is adequate for every agricultural purpose.

3. *The influence of peat in modifying the decay of organic matters deserves notice.* Peat itself in its native bed or more properly the water which impregnates it and is charged with its soluble principles has a remarkable anti-septic or preservative power. Many instances are on record of the bodies of animals being found in a quite fresh and well-preserved state in peat bogs, but when peat is removed from the swamp, and so far dried as to be convenient for agricultural use, it does not appear to exert this preservative quality to the same degree or even in the same kind.

Buried in a peat bog or immersed in peat water, animal matters are absolutely prevented from decay, or decay only with extreme slowness; but if covered with peat that is no longer quite saturated with water, their decay is indeed checked in rapidity, and the noisome odors evolved from putrefying animal substances are not perceived, still decay does go on, and in warm weather, no very long time is needed to complete the process.

The effect of peat in modifying decay is analogous to that of charcoal, and is probably connected with its extreme porosity. If a piece of flesh be exposed to the air during summer weather, it

shortly putrefies and acquires an intolerable odor. If it be now repeatedly rubbed with charcoal dust and kept in it for some time, the taint which only resides on the surface, may be completely removed, and the sweetness of the meat restored, or if the fresh meat be surrounded with a layer of charcoal powder of a certain thickness, it will pass the hottest weather without manifesting the usual odor of putrefying bodies.

It does, however, waste away, and in time, completely disappears. It decays, but does not putrefy, it exhales, not the disgusting gases which reveal the neighborhood of carrion, but the pungent odor of hartshorn. The gases which escape are the same that would result if the flesh were perfectly burnt up in a full supply of air, viz.: vapor of water, carbonic acid, and ammonia.

If we attend carefully to the nature of decay thus modified by charcoal dust, we find that it is complete, rapid but regular, and unaccompanied by unhealthful or disagreeable exhalations.

Peat has all the effects of charcoal with this advantage, that it permanently retains the ammonia formed in decay, which, contrary to the generally received opinion, charcoal does not.

From its absorptive power for water, it maintains a lower temperature under the sun's heat than dry charcoal or a light soil, and this circumstance protracts and regulates the process of decay in a highly beneficial manner, so that if a muck dressed soil receive an application of stable manure, fish, or guano,—in the first place, the ammonia and other volatile matters cannot be formed so rapidly as in the undressed soil, because the soil is moist, and decay is thereby hindered,—and in the second place, when formed they cannot escape from the soil, but are fixed in it by the peculiar absorptive power of the vegetable acids of muck.

4. *Peat promotes the disintegration of the soil.* Every soil is a storehouse of food for crops; but the stores it contains are only partly available for immediate use. In fact, by far the larger share is locked up, as it were, in insoluble combinations and by a very slow and gradual change does it become accessible to the plant. This change is chiefly brought about by the united action of water and carbonic acid gas, or rather of water holding this gas in solution. Nearly all the rocks and minerals out of which fertile soils are formed,—which therefore contain those inorganic matters that are essential to vegetable growth,—though very slowly acted on by pure water, are decomposed and dissolved to a much greater extent, to an extent, indeed, commensurate to the wants of vegetation, by water charged with carbonic acid gas.

The only abundant source of carbonic acid in the soil, is decaying vegetable matter. Hungry, leachy soils, from their deficiency of vegetable matter and of moisture, do not adequately yield their own native resources to the support of crops, because the conditions for converting their fixed into floating capital are wanting. Such soils dressed with peat or green manure, at once acquire the power of retaining water, and keep that water overcharged with carbonic acid, thus not only the extraneous manures which the farmer applies are fully economized; but the soil becomes more productive from its own stores of fertility which now begin to be unlocked and available.

It is probable, nay almost certain, that the acids of peat, exert a powerful decomposing and ultimately solvent effect on the minerals of soil.

5. *The influence of peat on the temperature of light soils dressed with it may often be of considerable practical importance.* A light dry soil is subject to great variations of temperature, and rapidly follows the changes of the atmosphere from cold to hot, and from hot to cold. In the summer noon a sandy soil becomes so warm as to be hardly endurable to the feel, and again it is on such soils that the earliest frosts take effect. If a soil thus subject to extremes of temperature have a dressing of peat, it will, on the one hand, not become so warm in the hot day, and on the other hand it will not cool so rapidly, nor so much in the night; its temperature will be rendered more uniform, and on the whole more conducive to the welfare of vegetation. This regulative effect on temperature is partly due to the stores of water held by peat. In a hot day this water is constantly evaporating, and this, as all know, is a cooling process. At night the peat absorbs vapor of water from the air, and condenses it within its pores, this condensation is again accompanied with the evolution of heat.

It appears to be a general, though not invariable fact, that dark colored soils, other things being equal, are constantly the warmest, or at any rate maintain the temperature most favorable to vegetation. It has been repeatedly observed that on light colored soils, plants mature more rapidly if the soil be thinly covered with a coating of some black substance. Thus Lampadius, Professor in the School of Mines at Friburg, a town situated in a mountainous part of Saxony, found that he could ripen melons, even in the coolest summers, by strewing a coating of coal-dust, an inch deep, over the surface of the soil. In some of the vineyards of the Rhine, the powder of a black slate is employed to hasten the ripening of the grape.

GIRARDIN, an eminent French agriculturist, in a series of experiments on the cultivation of potatoes, found that the time of their ripening varied eight to fourteen days, according to the character of the soil. He found, on the 25th of August, in a very dark soil, made so by the presence of much humus or decaying vegetable matter, twenty-six varieties ripe; in sandy soil but twenty, in clay nineteen, and in a white lime soil only sixteen.

It can not be doubted then, that the effect of dressing a light, sandy or gravelly soil with peat, or otherwise enriching it in vegetable matter, is to render it warmer, in the sense in which that word is usually applied to soils. The upward range of the thermometer may not be increased, but the uniform warmth so salutary to our most valued crops is thereby secured.

In regard to the manner of applying muck, Prof. JOHNSON observes:

As to the time and manner of getting out peat, the circumstances of each case must determine. The month of August is generally the appropriate time for throwing up peat, as then the swamps are usually most free from water, and most accessible to men and teams; but peat is often dug to best advantage in the winter, not only on account of the cheapness of labor, and from there being less hurry

with other matters on the farm at that season, but also because the freezing and thawing of the peat that is thrown out must probably aid to disintegrate it and prepare it for use.

Exposure or seasoning of peat. In most cases the chief or only use of exposing the thrown up peat to the action of the air and weather during several months or a whole year, is to rid it of the great amount of water which adheres to it, and thus to reduce its bulk and weight, previous to cartage.

The general effect of exposure, as proved by my analyses, is to reduce the amount of matter soluble in water, and cause peats to approach in this respect a fertile soil, so that instead of containing 2.4 or even 6 per cent. of substances soluble in water, as at first, they are brought to contain but one-half these amounts, or even less. This change, however, goes on so rapidly after peat is mingled with the soil, that previous exposure is rarely necessary, and most peats may be used perfectly fresh.

The following extracts in regard to composting muck will be read with interest:

PREPARATION OF COMPOSTS.—To a given quantity of stable manure, two or three times as much weathered or seasoned muck by bulk may be used. The manure may either be removed from the stables, and daily mixed with the appropriate amount of muck, by shoveling the two together, at the heap, out of doors; or, as some excellent farmers prefer, a trench, water tight, four inches deep and twenty inches wide, is constructed in the stable floor, immediately behind the cattle, and every morning a bushel-basketful of muck is put behind each animal. In this way the urine is perfectly absorbed by the muck, while the warmth of the freshly voided excrements so facilitates the fermentative process, that, according to Mr. F. HOLBROOK, of Brattleboro, Vt., who I believe first employed and described this method, *much more muck can thus be well prepared for use in the spring*, than by any of the ordinary modes of composting. When the dung and muck are removed from the stable, they should be well intermixed, and as fast as the compost is prepared, it should be put into a compact heap, and covered with a layer of muck several inches thick. It will then hardly require any shelter if used in the spring.

On the farm of Mr. POXD, of Milford, Conn., I have seen a large pile of this compost, and have witnessed its effect as applied by that gentleman to a field of sixteen acres of fine gravelly or coarse sandy soil, which, from having a light color and excessive porosity, had become dark, unctuous, and retentive of moisture; so that during the drouth of 1856, the crops on this field were good and continued to flourish, while on the contiguous land they were dried up and nearly ruined.

By reference to the Transactions of the Connecticut State Agricultural Society for 1857, it will be seen, in the very interesting report of the committee on farms and reclaimed lands, that on the farms which received the high premiums, and the most honorable mention, composts of muck and stable manure are largely employed.

Prof. JOHNSON pronounces the following opinion of several farmers a "fact," and "one which de-

serves to be painted in bold letters on every barn-door in Connecticut:—"That a well made compost of two loads of muck and one of stable manure, is equal to three loads of the manure itself."

Guano may be composted with muck to great advantage—say a bushel of guano to eight or ten of muck. Fish and muck make an excellent compost. S. HOYT & SOXS, of New Canaan, Conn., have employed 220,000 fish for this purpose in one season, and use ten or twelve loads of muck to one of fish.

A layer of muck one foot or more in thickness is spread upon the ground, and covered with a layer of fish; on this is put another layer of muck and another of fish; and so on till the pile is several feet high, finishing with a good layer of muck.

In the summer, when this work is usually attended to, the fermentation begins at once, so that no delay must be allowed after the fish are taken, in mixing the compost, and in a short time the operation is complete; the fish disappear, bones excepted, and by shoveling over, a uniform mass is obtained, almost free from odor, and retaining perfectly all the manurial value of the fish. Lands well manured with this compost will keep in heart and improve, while, as is well known to our coast farmers, the use of fish alone is ruinous, in the end, on light soil.

It is obvious that any other easily decomposing animal matters, as slaughter-house offal, soap-boiler's scraps, glue waste, etc., etc., may be composted in a similar manner, and that all these substances may be made together into one compost.

In case of the composts with guano, yard manure, and other animal matters, ammonia is the alkali which promotes these changes; and it would appear that this substance, on some accounts, excels all others in its efficacy; but the other alkaline bodies, *potash* and *lime*, are scarcely less active in this respect, and being at the same time of themselves useful fertilizers, they may be employed with double advantage in preparing muck composts.

LUCERNE.—This leguminous plant was extensively cultivated by the Romans, and commended by COLUMELLA as the choicest of all fodder. One acre he thinks sufficient to keep four horses through the whole year. The late Chancellor LIVINGSTON, some years ago, in Columbia Co., N. Y., obtained 25 tons of hay, at five cuttings, from an acre of lucerne. It requires very rich land, and should be sown in drills a foot apart, and the land must be kept very loose and free from weeds. The first year the crop is light, and it does not produce a medium yield till the third year. In the neighborhood of large cities, it might be grown to advantage as green food for milch cows. When drilled, 10 lbs. of seed is sufficient for an acre; broadcast 16 lbs.

INDIAN CORN, said the late JOHN TAYLOR, of Virginia, is the "meal, meadow and manure of the farm."

THOMAS BATES.

We design to prepare for the *Genesee Farmer* short sketches of the lives of eminent agriculturists accompanied with portraits. We think this will prove interesting, especially to the young farmers of our country. We hope, too, that they may serve to give them a higher appreciation of their noble calling, and stimulate to increased effort after excellence in their profession.

THOMAS BATES, so well known as a Short-horn breeder, was born at Matfen, Northumberland England, in the year 1775. He commenced his studies in a school at Haydon Bridge, and continued them at Witton-le-Wear, and completed his education at Edinburgh University.

In early life his attention was directed to the law as a profession, but this was soon abandoned for the more congenial pursuits of agriculture. He commenced farming on one of his father's farms called "The Eeles," on the banks of the North Tyne, near Hexham. In the year 1800, he removed to Halton Castle, which he occupied for twenty-one years; thence to Ridley Hall; and subsequently to Kirkclevington, in Yorkshire, where he resided till the time of his death, which took place in the seventy-fifth year of his age, July 26, 1849.

It was on the Halton Castle farm that Mr. BATES laid the foundation for his celebrated tribes of Short-horns. The origin of his "*Duchess*" stock was a cow bought from CHARLES COLLING in 1800. So pleased was Mr. BATES with this specimen of the herd that at Mr. COLLING's sale at Ketton, in 1810 he determined to have at any price, a heifer, the two years old, called *Duchess*, a grand-daughter of the cow he possessed. His instructions to the auctioneer were that whatever sum any one might offer for *Duchess* he was to bid five guineas more; and he obtained the prize for 183 guineas (\$922). From this animal, first crossed by a son of the old cow came that produce which has earned for herself and her owner a world-wide celebrity. She was by the celebrated bull *Comet*, her dam by *Favorite* grandam *Duchess*, by *Daisy Bull*, &c. *Comet* was owned by COLLING, and once sold for 1000 guineas. His descendant, BATES' celebrated bull *Duke* of Northumberland, was never put up at public auction, or there can be no doubt he would have brought an equal or greater sum. It is indeed known that Mr. BATES refused a private offer of 1000 guineas for him. He appears to have deemed him too valuable to put a price on.

For upwards of a quarter of a century Mr. BATES did not exhibit at any of the shows. He was, with great care, perseverance and skill, bringing his herd



THOMAS BATES, OF KIRKLEAVINGTON, ENGLAND.

to perfection. When he did exhibit he was eminently successful. In 1839, at the show of the Royal Agricultural Society, at Oxford, he made a most brilliant display, carrying off four prizes, and, in fact, winning everything for which he entered. Some of his animals commanded extraordinary prices, and at the sale of his stock, after his decease, in 1850, a higher average was obtained than at any subsequent sale since the time of the COLLINGS. One family—the Duchess—realized, including young calves, £1627 10s. (say \$8,135) for fourteen lots, being an average of £116 5s. (\$581) per head. This stock was descended from the heifer Duchess, before alluded to, purchased from Mr. COLLINGS 40 years previous. His entire herd of 68 animals, including calves, brought an average of £67 (\$335) each.

Mr. BATES' fondness for his animals was remarkable. He would go to the cows, and even young heifers, in the fields, pat them and talk to them, while they would immediately give up their grazing, and look intelligently as if listening to and even understanding his remarks; approaching and

licking his hand or his coat with every mark of affection. He lived among them and loved them, and they were loving and grateful in return.

Of his history as a farmer, we have space to say but little. He occupied a cold clay, which, when he took it was "hide-bound with poverty and exhaustion." He made it by far the best cultivated farm in the neighborhood. Of his early history as a farmer, we can give nothing so interesting as a few extracts from his own writings. He says:

"I had not been long engaged in farming before I became thoroughly convinced that the atmosphere contained the great ingredients for the amelioration of the soil. This I discovered by seeing the good effects of the same surface being exposed to the atmosphere, as long time as possible, before turnip seed was sown; and that the *fineness and openness of the soil being increased without changing the surface*, was the grand desideratum. A field plowed in October after oats, ribbed across in February, and then only worked with a scuffler afterward, never again plowed till drilled for turnips, produced the heaviest crop per acre of white turnips I ever saw, and this was in the year 1793. They considerably exceeded 50 tons per acre, when they had stood till February. They were sown in June. I

mention this fact to induce young men to attend to the operations of nature."

The following experiment shows the characteristic energy and determination of the man:

"I may also make a remark that may be serviceable to those who have found peaty earth mixed with new made dung highly beneficial, laying the same in layers 12 inches thick of peat earth, to 6 inches of dung, as new made; turning the heap over a few weeks before applying the same to the soil. I had seen this done in Ayrshire in 1805; I began the same on my return home, and was soon convinced of the benefit to be derived therefrom.

"In a distant part of the same farm, I had a very deep peat moss; and during the winter, I mixed it in the same way, with the new made dung; but on turning it in the spring, I saw no signs of the dung; the whole, as mixed, was applied to the turnip crop, and it was a complete failure. The barley sown after the turnips was not half the crop I had previously had on the same field, and the clover and seeds that followed were the same. I then applied 15 chaldrons of lime per acre, and plowed it in for an oat crop. The crop was a very great one, and the field afterward continued very productive; but not having then studied chemistry, I could not account for the deterioration, and then the after improvement; and this induced me to go to Edinburgh to study chemistry, to account for the change.

"The first trial I made of peat moss was free from oxide of iron; the latter, that did the harm, had a very large portion of that salt; this destroyed the dung and rendered it useless; but the application of a large dose of lime (15 chaldrons per acre) removed the bad effects of the oxide of iron, and converted it into beneficial manure.

"This hint, costly to me in the first instance, may, I hope, be of benefit to others; and as such I have here detailed it fully."

The farmer who was willing to leave his farm for a time "to go to Edinburgh to study chemistry," deserved to succeed.

Of the management of his heavy, tenacious clay farm, Mr. BATES says:

"When I commenced farming here, in 1811, now thirty-seven years ago, nearly the whole tillage part of the estate was under the *three* course of cropping, still so prevalent in this district, and so deteriorating, viz., that of *Bare fallow, Wheat, Oats*. No farm-manure laid upon any of the crops; it was all applied to the grass land.

"I began by applying all the farm-manure made on the premises to the tillage land, and as far as I could for turnips; and where the land was too strong, and difficult to procure turnips, I applied it to beans drilled at 27 inches asunder in the rows, as in turnips, and sowed grass seeds on the wheat crop succeeding the turnips, to lie one or two years, which refreshed the tillage. But this being a slow process, I began and bought as much manure as the farm made, and applied this to the bean crop, taking wheat after the beans; and having made the land clean by a bare fallow before I began this plan, it succeeded well for two rotations of beans and wheat; and finding in a year when the land, from the sudden dry season after a wet spring, could not

be well wrought for beans, they failed, and the wheat also succeeding the beans, I changed the system, and after turnip fallow and wheat I then sowed red clover, on the wheat crop; and finding, contrary to my experience in Northumberland, that red clover on our Cleveland strong lands would stand two years, I adopted it; and following after the second year's clover, I found most excellent crops of wheat, without any manure applied for the wheat crop; but after being so repeated, at the interval of nine years, the first year's clover was good, but the second year was very inferior; I therefore changed my system to that of a twelve year's course, divided into two six years:—1st, fallow (turnips where they can be got); 2nd, wheat; 3rd, red clover; 4th, fallow (as before); 5th, wheat; 6th, beans (and if to be bare fallow the following year, I applied dung to the beans). Next six: 1st, fallow (as before); 2nd, wheat (on which was sown 5 lbs. of cow-grass, 5 lbs. of white clover, 2 lbs. of hop clover, and 2 lbs. of parsley with Italian rye-grass, $\frac{1}{2}$ bushel per acre); 3rd and 4th, sheep pasture; 5th, oats; 6th, beans, being the twelve year's course."

Mr. BATES "mole-drained" 850 acres of his 1000 acre clay farm with great advantage, especially on the grass land.

So much for Mr. BATES as a breeder and a farmer. As a neighbor, a friend, a christian gentleman, he was universally esteemed and respected. Few enjoyed a wider range of popularity. His liberality was unbounded. Such were his efforts to circulate the sacred volume that he obtained the sobriquet of "Bible Bates."

He was never married. Early in life, it is said, he formed an attachment to a young lady, and was on the point of marriage; but before the event he introduced a near friend to his intended bride, who supplanted him in her affections, and ultimately married her. This must have been a severe stroke to so sensitive a mind, and was probably the cause of a resolve which a man of so much firmness of purpose was certain to keep.

Robust in body, active in mind, temperate in his habits, and living almost in the open air, he knew little of disease, and seldom, if ever, consulted a physician. When his health began to fail, it was some time before he could be prevailed upon to consult a medical adviser, and when he did he refused the greatest part of the medicine. Loving his favorite cattle, he reclined in the cow-houses near his companions, until compelled to enter his room—to leave it only a few hours after for the place appointed for all living.

FIVE THOUSAND-FOLD INCREASE.—A bunch of rye from a single kernel, on the farm of Mr. J. H. Hidley, of Greenbush, N. Y., in 1842, produced 77 stalks, averaging six feet in length, the produce of which was estimated at 5,000 kernels.

ENGLISH BACON.

A CORRESPONDENT asks for information in regard to the method of curing bacon in England. We should be glad if some of our English friends would give us an article on this subject—especially as to the best method suited to this climate.

One method with which we are most familiar is as follows: The hogs are scalded and dressed as in this country, but are not allowed to freeze. When cool and firm, say in 24 to 36 hours, they are cut up. First, the head is taken off close to the ears; the body is then split down the middle and laid on a table. The ham is then cut from the side by the second joint of the back bone. The spare-rib is then taken out. Sometimes the shoulders are taken off at the first joint next the shoulder; in other cases they are cured with the sides without being taken off. The hams are rounded off, and all loose fat and flesh meat cut away.

The sides are termed "fitches." They are well rubbed with salt, and placed on a stone bench from whence the brine can drain away. As soon as the salt is all melted, say in three or four days, they are again rubbed with salt, to which a small quantity of salt-petre has been added. They are kept covered with salt for from three to four weeks, according to the size of the hog and the temperature of the weather. If it is very cold, and the hogs are large, they are sometimes kept in salt for five weeks. The hams are treated in the same way, except that they are sometimes allowed to remain a week longer in salt, and are rubbed with a larger quantity of salt-petre than the fitches. A pound of salt-petre to a hog weighing 400 lbs. is the usual quantity—the greater portion being used on the hams and shoulders. Care, of course, should be used to have every hole in the knuckles or around the bones well filled with salt, and an extra quantity of salt-petre.

When the fitches have been in salt the proper time, they are taken out, rubbed dry and hung up over the kitchen to dry. When quite dry and firm, say in a month or six weeks, they are taken down and stowed away in malt or some other dry substance. The hams are treated in the same way, except that they require more time to dry. The room should not be too warm. The cheeks are cured in the same way.

In many parts of England, as in this country, the bacon is smoked. In this we have had no experience.

In Hampshire, the hair, instead of being removed by scalding and scraping, is singed off by burning with straw, and to this it is thought the superiority of "Hampshire bacon" is mainly due.

WESTPHALIAN HAMS.

The justly celebrated Westphalian hams are cured in a pickle prepared as follows:

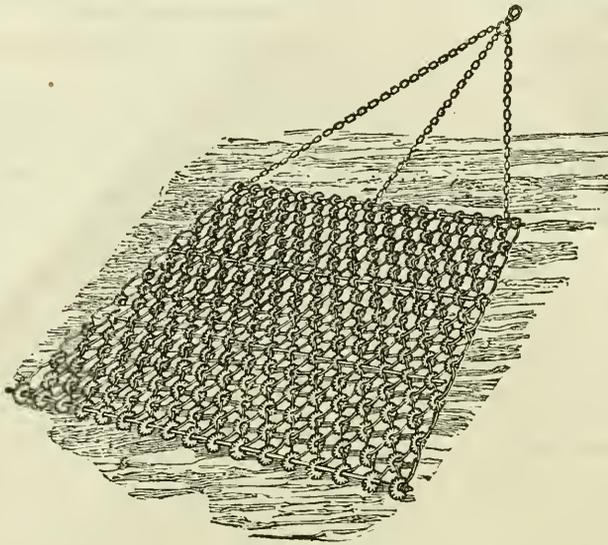
Boil together over a gentle fire six pounds of good common salt, two pounds of powdered loaf sugar, three ounces of saltpetre, and three gallons of spring water. Skim it while boiling, and when quite cold, pour it over the hams, every part of which must be covered with the brine. Hams intended for smoking, will be sufficiently salted in this brine in two weeks; though if very large, more time may be allowed. This pickle may be used repeatedly, if boiled, and fresh ingredients added. Hams, before they are put in the pickle, should be soaked in water, all the blood pressed out, and wiped dry. Much of the excellence of the ham is depending on the smoking. This should be done in such a manner that the ham shall be cool and perfectly dry throughout the whole operation. If too near the fire, they will be heated, and their flavor injured; if the building be too close, the hams will be wet, and taste as if dipped in pyroligneous acid. At Hamburg, where large quantities are prepared, the hams are smoked in the upper story of high buildings, while the fires, which are made of oak or maple chips, are made in the cellars. In passing through such a length of pipe to the chambers, the smoke becomes cool and dry; and the flavor of the hams is excellent. Hams intended for summer use, may be kept in any way where they will be dry and cool, and secure from the fly or bug. Washing with lime or putting in bags of coarse cloth, one ham in each, is practiced by many. Some keep their hams through the season in the smoke house, making a smoke under them once or twice a week.

INFLUENCE OF AGRICULTURAL PAPERS.—The Rev. Mr. CHOULES in an address delivered some years since, before the American Institute, said:

"He once undertook to tell, in passing through a town, what farmers took agricultural papers, from the appearance of their farms, and missed but once in thirteen times.

"I was lately in the company of a son of a bank president—a young man accomplished in his way—who inquired what *neat cattle* meant, and how many years it took *wheat* to come to maturity. I earnestly believe that agricultural papers, generally circulated in our cities, would be productive of the greatest benefit."

BEANS AND INDIAN CORN FOR MILCH COWS.—R. H. BROWN, of Greece, informs us that he fed his cows, early this spring, with three pints each per day of Indian corn and white beans, ground together in equal parts. He never had his cows do so well on any other food; they gave a large quantity of milk, and the calves were the finest he ever raised. This food gave the cows a good start, and they continued in good condition during the summer, and afforded an unusual quantity of milk. He says he shall sell no more beans, but feed them to his cows.

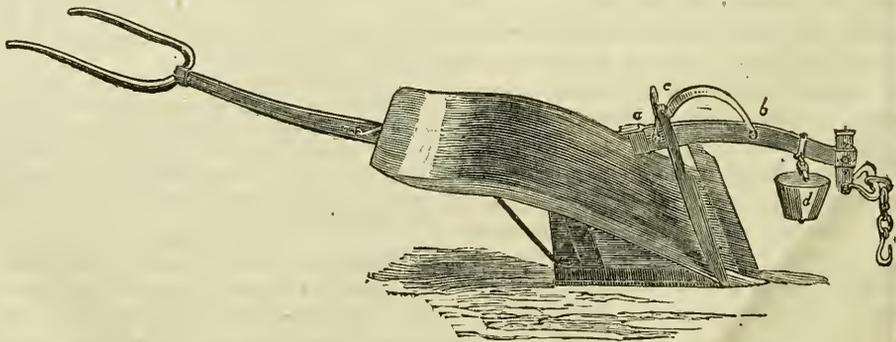
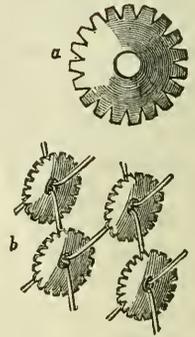


SMITH'S WEB-HARROW.

SMITH'S WEB-HARROW.

WE annex an engraving of an ingenious harrow invented by the late Mr. SMITH, of Deanston, England. It is designed to cover small seeds; the aim being to combine the operations of the roller and harrow. It is called the web-harrow, and was alluded to in the last volume of the *Genesee Farmer*. We have now the pleasure of presenting a cut of it. It consists of an iron chain web, connected by discs or quoits of iron which, lying obliquely upon their sides when in operation, roll around, thus tearing and abraiding the surface of the ground, and grind-

ing the smaller clods, so as to expose and dist the surface sufficiently to cover the small se strewn upon it. The serrated form of the di shown at *a* in the accompanying figure, where mode in which these discs bind the whole fra work together is also exhibited at *b*. It is by rubbing of the sides of the discs against the l as they revolve, that they are especially us more than by the action of their edges, th that is also efficient to some extent. The p of this harrow in England is about \$25, cove 25 square feet of ground.



M'EWAN'S DRAINING PLOW.

PLOWS FOR CUTTING UNDERDRAINS.

It is frequently the practice, in cutting underdrains, to throw out the first eight or ten inches of earth by means of the common plow. The accompanying figure, taken from MORTON'S *Cyclopedia of Agriculture* represents a plow sometimes used in Scotland for throwing out a lower spit.

In addition to the ordinary coulter, it also ca another, *c*, supported by two iron arms attache the beam at *a* and *b*. By means of the two cou and the shoveled-shaped mouth, or share, a full slice is at once cut out the width of the drain, ten to twelve inches deep. The vertical rolle preserves the position of the implement in

nter of the shallow trench. Such an implement, course, requires a great amount of power to put in motion. Mr. M'EWAN, who first introduced it Scotland, employed twelve horses to remove a it of from eighteen to twenty-two inches deep; and with the assistance of eight men to finish the bottom of the drain and guide the plow and horses, continued to execute drains of the depth named for one cent for eight yards.

SPIRIT OF THE AGRICULTURAL PRESS.

ROLLING THE SNOW ON WHEAT-FIELDS.—A correspondent of the *Toronto Globe* (C. W.) advances the opinion that rolling the snow on the autumn wheat in winter would be an effective means of preventing winter-kill, by rendering the snow less able to melt on every sudden thaw that occurs. He says the practice is extensively followed in Sweden. A good deal of discussion is taking place through the columns of that paper, on this subject, from which we gather that it yet requires the test of actual experiment to decide whether any benefit is to be derived from the operation or not.

WATERING COWS.—The *Boston Cultivator* gives an account of a recent visit to the farm of the Hon. JOSIAH QUINCY, Jr., near Boston, and says the stables are so arranged that the cows have a trough of water before them, covered with a lid hung on one side with butts, so that when the cow wants to drink she has only to raise the lid with her nose to get at the water. Mr. QUINCY is perfectly satisfied with a cow that gives 16 quarts of milk a day, whether she has a pedigree or not.

HOW CORN SHRINKS.—A correspondent of the *Prairie Farmer* weighed out 75 lbs. of corn on the ear, dried it, shelled it; and on submitting it to the test of the scales again, found that the corn and cobs together only weighed 60 lbs., having lost 15 lbs. He thinks it did not shrink more than most corn will by keeping over winter.

INCREASING THE WEIGHT OF WOOL.—An exchange says some farmers have increased the average yield of wool in their flocks, by weighing each fleece as it was sheared, and branding the weight on the animal it came off, and always selecting those for sale or slaughter that had the lowest weight of fleece marked upon them.

VALUE OF CASHMERE GOATS.—The *New York Observer* states that its weight in silver was tendered recently for a pure bred goat belonging to the Cashmere Shawl Goat Co. of Tennessee. The offer was refused. The company sell the wool of their seven-eighth blood goats for \$8 per lb.

FAWKES' STEAM PLOW.—The *Ohio Cultivator* thinks the recent trials of this implement have been all a sham. The *Prairie Farmer* doubts whether the machine can be economically used for plowing. The *North-Western Prairie Farmer* in plain terms intimates that the trial of this plow at Urbana, Ill., on the 22d November, was a failure; they were a series of break downs.

TEXAN SHEEP FARMS.—An exchange, remarking on the shipment of fourteen South Down rams, by GEO. HARTSHORNE, of Rathway, N. J., to Indianola, Texas, says that a steady feeling is growing up in favor of making Texas the greatest wool producing State in the Union. Mexican ewes are purchased at low prices, and by crossing them with males of the improved breeds, they produce stock of increased value and well adapted to the climate and pastures of that State. Would not the fine-wooled sheep be more profitable?

FEEDING HENS IN WINTER.—A correspondent of the *American Agriculturist* recommends giving hens hot food in winter to make them lay. He says the best way is to put a quart of small potatoes in an old pan, and set them in the oven. Mix a quart of wheat or buckwheat bran in the swill pail, with boiling water; then add about one quart of live coals from the stove, the potatoes hot from the oven, and all the egg shells on hand, with a little salt or Sulphur occasionally. These are all mashed together, and fed to the fowls in a trough so made that the hens can not step into it, but only put their bills in. This feed is given in the morning, at noon some corn, and at evening oats, or wheat screenings.

SCOTCH BUTTER.—The farmers of Aberdeenshire, Scotland, make a very superior flavored butter. They mix together two quarts of the best common salt, one ounce of white sugar, and one ounce of saltpetre. The mixture is to be rubbed up fine in a mortar, or on a board with a roller, and worked into the butter at the rate of one ounce to the pound.

KANSAS WHEAT.—The editor of the *Rochester Express*, who has spent some time in Kansas, says they grow very fine wheat there. He saw a sample weighing 65 lbs. per bushel, and yielding 30 bushels per acre.

SPAYING COWS.—The *New England Farmer* states that a gentleman at Newburyport had two cows spayed last spring, and is well satisfied with the beneficial effects produced by the operation. The cows give as much milk in October as they did just after calving in May.

PLOWING UP OLD PASTURES.

MR. MAIN, in the *Edinburgh Quarterly Journal of Agriculture* for 1834, writes an interesting article on this subject, from which we make a few extracts:

"Struck, when a boy, with delight at the ever-green meadows of Doncaster, and the freshness, in the dead of winter, of the fields near London, I could not, in settling in the north, help contrasting these—with a feeling almost bordering on disgust—with our whity-brown *grass parks* of Scotland, wearing, in many places, a pale blue tint till the beginning of June, or puffed off in the newspapers, as affording "a full bite" in the middle of May. I said to myself, "can not industry and exertion produce a change in our grass lands? Perhaps we can not expect to vie with Doncaster or London, but still something may be done." So doffing the gay soldier's coat, and putting on the hodded grey, I set to work, to try if fine pasture could not be got in Scotland. Long did I toil at top-dressing,—all the never-failing, oft recommended recipes of this compound and that compound, I tried in vain,—peat-earth in all the varied shapes of mixture with lime and dung, soot, composts with scrapings of ditches or other matter—all these I tried in various ways. I exhausted the pharmacopeia of agricultural quacks; and soon found out, that without the aid of plow and harrow, nothing could be done—in other words, that the ground must be put in *good heart* before you can have *good grass*.

"Well, that being done, I had fine grass; but it grew bad again; it was not fine *permanent pasture*. I had recourse, once more, to the old system of top-dressing, and of course improved the pasture, but again it fell off. By this time I had before my eyes the palpable fact, that new laid down grass was good, and that, do what I would, old grass could not be made to bring the same rent."

"It appears to me, that only on certain soils and situations, that pasture can be allowed to remain without great loss; that such situations are flat meadows, or the neighborhood of rivers or streams, rich in alluvial soil, and the natural habitat of the pasture plants, or in the vicinity of large towns, where manure has been applied till the ground could not bring a grain crop to maturity; and that on all other situations, recourse must be had to the plow, as soon as a failure in the grass crop takes place; and the breaking up will entirely depend on the quality of the land and manner in which it has been treated, there being no such true *unerring* guide to the *quality* of the land, as the length of time it can be profitably left in pasture."

"In conclusion, I would make a brief recapitulation of my sentiments: I maintain that except a few favored spots, as banks of rivers, &c., no ground can, without loss, be left long in pasture: that it appears to me four or five years is, generally speaking, the longest period land should be allowed to lie in grass; that if pasture be the object, at the end of that time, the ground should be broken up and returned to grass again. I maintain that *without* grass severely cropped land can not be restored to full fertility; and *without* cropping, grass can not be made to continue at the maximum point of utility and verdure."

A ROUGH AND CLODDY SURFACE SOIL FOR WHEAT

EDS. GENESEE FARMER:—The exceptions taken in a recent number of the *Farmer*, by a "Jersey man," to your very apposite remarks on the subject "a rough surface for wheat," suggested the inquiry "can this criticism come from *New Jersey* or *old*—away near the French coast?" At any rate, his ideas are behind the times, and his facts of a by-gone period. Even twenty-five years ago, the proportion of wheat plowed in, in England, was less than either that covered with harrow or deposited by the drill—less than one-third of the average annually sown; and although I have farmed and observed in several rich counties in that country, never, by any chance, heard the advocacy, or saw the practice, of such deep plowing for wheat as for beans, fallow-roots, &c. In fact, it would not do to plow up *new* mold for wheat, any better than to supply it with raw or green manure; because it is neither a large nor coarse feeder, but requires a moderate amount of well-prepared nutriment, made ready for assimilation by successive alternations of mechanical pulverization and atmospheric disintegration, which new mold and fresh dung have not been subjected to. A well settled soil, with plenty of mold fit for the use of the crop on its air crumbled surface, and the latter left rough to supply 1½ to 2 inches of covering mold, yet still retaining a somewhat rough surface, till the wheat is high enough to harrow, is the condition of mold generally that wheat best likes and flourishes in. For such irregularities are really necessary on heavy and adhesive land to prevent starving,—making smooth like a slate—the baking and cracking of the soil, and the choking or mud-logging the up-growing young plants; beside which a cloddy or corrugated surface affords much protection when the young crop is exposed—from the aspect of the field or other cause—to keen, cold, mold-lifting winds. The roots of wheat ramify and extend near the surface, generally, because the nourishment they require and absorb is usually found in the upper-crust of the soil—and this will ordinarily hold true of the mineral elements as well as the larger proportion of organic or vegetable remains which this plant uses in its growth; for, though mineral matter be carried to the roots in solution—probably in part by the same fluid which floats it up to the stem as crude sap—it must have been solved and otherwise made fit for use in the *surface* soil, because further down the temperature would be generally so low as to prevent the necessary chemical changes and combinations that undoubtedly take place in inorganic matter before it is absorbed by the rootlets. Thus it appears probable and consistent, that far greater benefit will, generally, be derived from manurial applications when they are first brought into a condition that will admit of easy and complete pulverization; and then so mixed with the immediate surface mold, as to be fully accessible to the heat and vapor of the atmosphere during the growth—especially in its early and more rapid stages—of the entire crop. In short, the reliable food of the plant is generally prepared by the action of heat in the top-soil, therefore it should be left with a large surface exposed to the subtle but infallible powers of the atmosphere.

WHAT DEPTH SHOULD WHEAT BE COVERED?

A WHEAT-GROWER of Western New York gives the following facts bearing on this point, in the Albany *Cultivator* for 1842.

In a bed of rich garden mold, I sowed, or rather libbled five rows of wheat, the respective depths of which were one, two, three, four, and six inches. The season was most favorable for germination, moist and warm, and the seed was carefully selected from a quantity of fine white flint, of the previous year's growth. That put to the depth of one inch, came up on the sixth day; and the rows of two and three inches, about two days later. The row at four inches was still more tardy, and at the end of sixteen days, only one of the seeds planted at six inches, showed itself above ground. The others never came up at all.

The rows planted at two and three inches, gave the best plants, that at one inch the most; although from some unexplained cause, about one sixth of the seed in all the rows, failed of germinating. Other experiments with nearly the same results, and close observation of the different modes of sowing, have convinced me that covering wheat too deeply is to cause a loss of a large portion of the seed, and seriously impair the germinating powers of the remainder. On the contrary, when the seed wheat is covered too shallow, it is more liable to destruction from insects, and from the drouth, and is not so well prepared to endure the frost of our winters, as when planted deeper. I apprehend too, that where wheat is put into barns, packed in large mows, and perhaps but imperfectly cured, the mass, in undergoing the sweetening process, through which it is certain to pass, accumulates so much heat as to change in some degree the vital properties of the grain, and partially destroy its geminating power. This may be the case without altering in any degree the external appearance of the grain.

A GOOD CATTLE RACK.—It consists of four scantling or other posts, six feet long, connected together by slats, strips of board six feet in length, and supported by diagonal braces extending from the top of one post to the bottom of the frame—the whole forming a six feet square. The slats are carried so high as to permit animals to reach the bottom over them—and it is advisable to floor the bottom. In these the hay or straw is put for the stock. The advantages which it offers are two—it prevents the fodder getting under the cattle's feet, and thereby being wasted—and it in a measure prevents the weak animals being driven from their food by the strong—four being accommodated at each rack without interfering.

PARSNIPS.—One of the easiest raised, and most profitable roots to feed to cattle in winter, is the parsnip. Though probably not quite equal to carrots, they are, in my opinion, superior as feed for stock to turnips, beets, and mangel wurzel; and are much easier to raise, and keep better through the winter. Perhaps, if acceptable, I shall in a future article give my method of culture, having always been successful.—W. H. H. PEARSON, *St. Lawrence Co., N. Y.*

We shall be glad to receive the article. **EDS.**

MANURING THE WHEAT CROP.

EDITORS GENESEE FARMER:—You have an invaluable correspondent in Mr. JOHNSTON, of Geneva. He seldom writes a letter which would not yield more profit to the majority of farmers, if its advice were attended to, than would suffice to pay for three or four agricultural papers the rest of their lives.

The application of manure directly to wheat is contrary to ordinary practice. I should fear an attack of rust. Do you know if wheat grown this way is no more liable to rust than other crops not so treated? If you try the experiment I suspect you will find that harrowing the manure into the soil with the wheat rather than plowing it under, is the best practice.

My usual plan has been to place manure in heaps and spread just before plowing; but in consequence of reading VOELKER's paper, I last spring spread the manure over half a field intended for corn, as I hauled it out—the manure on the other part being spread the day it was plowed under. The corn on that part of the field where the manure was first spread was quite as good as the other; but the weather was cloudy and stormy during the whole of the time the field was plowed. Had it been bright and dry, the result might have been otherwise.

Moundville, Wis.

JNO. TOWNLEY.

REARING CALVES:—The handsomest young heifer I ever saw, was one that was raised on potato mush. The cow died when the calf was an hour old, and we had no other cow giving milk at the time. An Irishman who lived close by us, showed me how to make the potato mush; we fed the calf entirely upon it, and by the time it was three months old, it was larger and fatter than any of those that came afterward, and were fed entirely on milk; and by the time it was three years old, it was valued at \$40, at which time some thief stole it, and we never saw it again.

I would never let a calf, that is to be raised, suck the cow at all; for if it is allowed to suck but once, it will be much more troublesome to teach it to drink afterward. I have known calves starve to death because they would not drink after having sucked the cow for a few days.—J. B. M., *Hawley, Pennsylvania.*

How was the mush made?

EDS.

THE WHEAT MIDGE.—ROBERT MILLARD, of Hampton, Washington Co., N. Y., alludes to this insect as follows, in the *Cultivator* for 1836:

The wheat crop in this section of the State, has been more or less injured, I believe for twelve years past, by what is here called "insects in the head." "These insects or maggots prey upon the kernel while growing in the field, and before the grain has become hard." In 1824 I had a field, containing five or six acres, about half destroyed, and subsequently for four or five years, my entire crop was destroyed. In 1830 I abandoned the idea of trying to raise wheat here, and have not since sown any. A neighbor of mine wishes me to say, however, that for two years past he has raised fine crops of spring wheat, by sowing his seed the 1st of June. Not an insect or maggot was to be found in either crop.

SEEDLING POTATOES.

EDS. GENESEE FARMER:—Having had some experience in the raising of potatoes from the ball seeds, I will give it to the readers of the *Farmer*, thinking it may be interesting to some. My first experiment was in 1855, when I obtained a few balls from the vines of *Peach Bloss*, *Leopards*, and a variety here called *English Whites*. The seeds were not fully ripe, and only a few came up, and the insects destroyed all but three of these. From these I obtained three or four tubers, about as large as *Marrowfat* peas. I kept them through the winter in a small bag, buried in sand in the cellar. In the spring, I planted them in rich ground in one hill. When dug I found a pretty good yield, but rather small, being from the size of a pea to a partridge egg. The product of these I planted last spring, and they yielded I think about nine or ten bushels—rather a small yield. From their appearance, I think there are three varieties, though there may be four. Two varieties are nearly alike in appearance. Of these three varieties, the largest and best is long, round, dark colored, with deep eyes. It yielded this year an enormous number of middling-sized potatoes to each hill. It is an excellent variety to bake, though one end (the seed end) is rather watery, as they were not ripe when the frost came. The next best variety is a white, with deep eyes, shape long and some knotty; an early variety. Third variety is nearly white, but some of the largest have a part of the eyes pink colored; a very handsome variety, but small, very late, and very worthless for this section. This year I have raised about forty potatoes, varying in size from a pea to a dove's egg, mostly seedlings of number three. They are so small I can not tell what, or how many, varieties there are.

Pitcairn, St. Lawrence Co., N. Y.

W. H. H. PEARSON.

BERMUDA POTATOES.—I have just taken up a small lot of potatoes, a note of which may not be uninteresting to the readers of the *Farmer*. The seed consisted of six medium sized potatoes, presented by a friend, who called them *Bermudas*. They are of a red color, long and flat in shape. Having cut them in pieces containing one eye each (72 in number), I planted about the middle of May, in a light sandy soil, and manured in the row with barn-yard manure, and top dressed with leached ashes; horse-hoed twice and hand-hoed once a week, until they blossomed. The result is, two and one-eighth bushels good sized potatoes. Allowing each hill to be one foot apart, and rows three feet, we have over four hundred and twenty-five bushels to the acre.—J. O. H., *Dillsburg*, Oct. 1859.

COMPARATIVE VALUE OF FUEL.—Several years since Mr. MARCUS BULL instituted a series of experiments, in regard to the quantity of heat given out by different kinds of fuel. The result was as follows:

Hickory,	4	cords.
White Oak,	4 3-4	"
Hard Maple,	6 2-3	"
Soft Maple,	7 1-5	"
Pitch Pine,	9 1-7	"
White Pine,	9 1-5	"
Anthracite Coal,	4	tons.

In other words four cords of hickory give out as much heat as 4 tons of coal; 6 3-4 cords of maple, or 9 1-5 cords of pine,

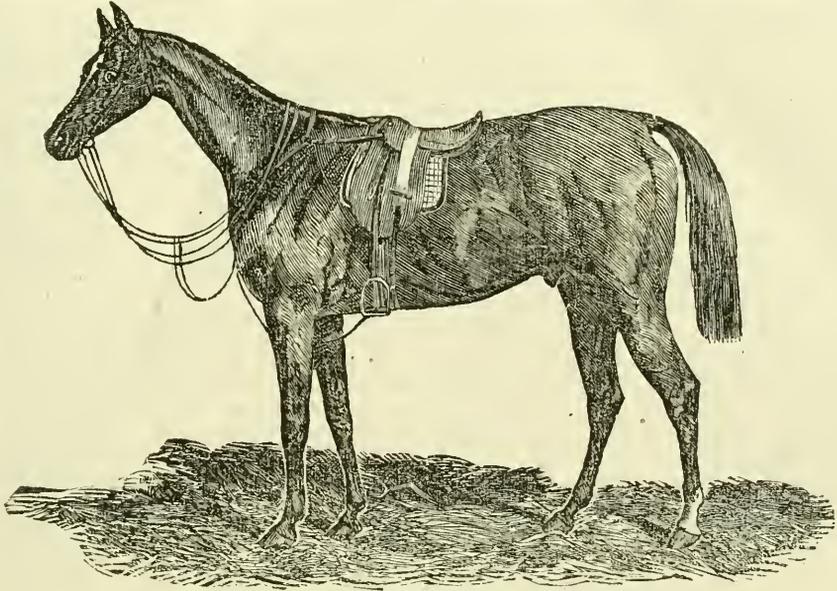
PROPER FORM AND SHAPE OF CATTLE.

IF there is one part of the frame, the form of which, more than that of any other, renders the animal valuable, it is the chest. There must be room enough for the heart to beat, and the lungs to play, or sufficient blood for the purposes of nutriment and of strength will not be circulated; nor will it thoroughly undergo that vital change which is essential to the proper discharge of every function. We look therefore, first of all, to the wide and deep girth about the heart and lungs. We must have both; the proportion in which the one or the other may preponderate, will depend on the service we require from the animal; we can excuse a slight degree of flatness of the sides, for he will be lighter in the forehand, and more active; but the grazer must have width as well as depth. And not only about the heart and lungs, but over the whole ribs, must we have length and roundness; the *hooped*, as well as the deep barrel, is essential; there must be room for the capacious paunch, room for the materials from which the blood is to be provided. The beast should also be ribbed home; there should be a little space between the ribs and the hips. This seems to be indispensable in the ox, as it regards a good healthy constitution, and a propensity to fatten; but a largeness and drooping of the belly is excusable in the cow, or rather, notwithstanding it diminishes the beauty of the animal, it leaves room for the udder; and if it is also accompanied by swelling milk-veins, it generally indicates her value in the dairy.

The roundness and depth of the barrel, however, is most advantageous in proportion as it is found behind the point of the elbow, more than between the shoulders and legs; or low down between the legs, rather than upwards towards the withers; for it diminishes the heaviness before, and the comparative bulk of the coarse parts of the animal, which is always a very great consideration.

The loins should be wide: of this there can be no doubt, for they are the prime parts; they should seem to extend far along the back; and although the belly should not hang down, the flanks should be round and deep. Of the hips it is superfluous to say that, without being ragged, they should be large; round rather than wide, and presenting, when handled, plenty of muscle and fat. The thighs should be round and long, close together when viewed from behind, and the further down they continue to be so the better. The legs short, varying like other parts, according to the destination of the animal; but decidedly short, for there is an almost inseparable connection between length of leg and lightness of carcass, and shortness of leg and propensity to fatten. The bones of the legs, and they only being taken as a sample of the bony structure of the frame generally, should be small, but not too small—small enough for the well known accompaniment,—a propensity to fatten—small enough to please the consumer; but not so small as to indicate delicacy of constitution, and liability to disease.

Last of all the hide—the most important part of all—thin, but not so thin as to indicate that the animal can endure no hardship; moveable, mellow, but not too loose, and particularly well covered with fine soft hair.



THE BRITISH YEOMAN, WINNER OF THE GREAT METROPOLITAN STEEPLE-CHASE IN 1849.

THE BRITISH YEOMAN.

WE have had the above portrait of this celebrated horse engraved for the *Genesee Farmer*, from a steel engraving in the *London Farmer's Magazine*. We copy the following description of him from the same work:

The British Yeoman, a bay horse, bred by Mr. V. CORBET in 1839, was sired by Count Porro, out of Pintail by Pioneer, her dam Ringtail by Buzzard, her dam by Trentham out of Cytherea, sister to Drone by Herod—Lily by Blank.

Count Porro, was but a bad race-horse, having during the three seasons he was in training never won anything but a fifty pound plate. As a stud-horse, too, he does not rank high; for beyond a couple of fairish mares, Jemina and Miss Maria, the property of Sir RICHARD BULKELEY, and his great card the Yeoman, there has been nothing out by him to "signify." His stock, however, were generally handsome, with—a family likeness—particularly good, blood-like heads.

Pintail, bred by Mr. RUSH in 1824, and the last of a dozen foals her dam produced, never ran but once, when she was not placed, in a two-year-old stake at Newmarket. She was sold the following spring, at the hammer, to Mr. CORBET, who bred from her some for seasons with but indifferent success. Our friend "the Racing Man," though, is so well up (as the lawyers say) in this case, that to make the history complete we repeat the following from his account of the Metropolitan Steeple Chase. After a note of admiration for Mr. MASON, he thus proceeds:

"Of his horse, 'The British Yeoman,' I am perhaps better qualified to speak than of his accomplished jockey, this across-country crack having

been bred by a much respected friend, and affording a striking example of the success that perseverance will sometimes attain in breeding. Pintail, the dam of the Yeoman, was put to the stud at three years old; and throwing a foal almost every spring for thirteen or fourteen years, never up to that time produced one worth breaking. Many of them were fine good-looking colts; that in no way, however, fulfilled the promise of their appearance; as race-horses, and they were tried often enough, not one could win a ten pound note. As hunters they were famous for bad hocks, and not being able to go a yard through dirt. Many a day have I sickened on one, whose only fit duty, with his fine mouth and good action, was to canter up Rotten Row. So disheartening, in fact, did the case become, that the celebrated Nimrod, when on a visit at the house, walked into the drawing room one morning, after a round of inspection, with these words in his mouth:

"My dear madam, I can tell you how to save my old friend a good income."

"How, pray?" of course inquired the lady.

"By cutting that brute Pintail's throat."

"And yet, after that, this brute, Pintail, lived to produce the very best steeple-chase horse of his day."

"The British Yeoman is altogether a better horse than he looks. From his appearance you would hardly give him credit for carrying that weight through dirt he has so sufficiently proved he can do. He is light everywhere, all wire in fact, with far more the cut and carriage of a race-horse than a hunter. From what I could gather of him, I should say two of his best points were, a fine mild temper and excellent action for the kind of country I saw him go over. I have little doubt, indeed, that with some material to work on, much of his success is due to the clever hands into which he has fallen."

FOWLS—THEIR IMPORTANCE, MANAGEMENT, &c.

"THE noble and ancient Chanticleer, whose clarion notes have been the farmer's timepiece ever since Peter denied his master, and has never failed to sound the approach of every rising sun; the bird that saved old Rome from conflagration by his warning voice in the dead of night—shall these lose their old and established rank, and give place in man's affections to herds of swine and sturdy bulls of Bashan? What are their uncouth grunts, frightful bellowings around the farmer's cottage, compared with all the music of the cheerful cackling, chattering, chirping, and crowing, with which the poultry-yards resound from day to lay? If there is not music, there is life in it."

But to come more to sober matter-of-fact, we think this branch of the farmer's concern is deserving of more attention than it has generally received. It has been well established, that the profit derived from a well-managed, well-arranged poultry-yard, is greater in proportion to the investments, than that of any other stock.

Fowls are most valuable to the farmer, as yielding eggs and chickens. The varieties of the fowl are very numerous, and are distinguished from one another by their size, color, and fecundity. In order to be successful with fowls, they should be kept very clean and dry in the hen-house, and particular care must be taken to furnish them with clean, sweet water; foul, impure water, produces that most dreaded and fatal disorder among chickens called gapes, which is known by the chickens gaping for breath, and often dying in a few hours. No certain or efficacious remedy, as yet has been discovered for this disorder; therefore we advise care and cleanliness to prevent it. Foul water, and a scarcity of water, are also causes of the roup in hens, and the origin of most all, if not all, their diseases. Poultry of all sorts should therefore be provided with clean apartments, to retire into during the night, and in seasons of wet and cold. Warmth is necessary for the comfort and well-being of poultry. If hens are kept with care, well fed, and have clean, quiet places to deposit themselves in, they will lay regularly, and repay all trouble. Early hatched pullets will generally commence laying early in the fall, and, if well fed, warm and comfortably housed, will continue to lay through the winter. The laying time for older hens begins in March. A hen about to lay, gives notice of her intention by being busy and restless and peering into sly places, and *talking to herself* for some time, and her comb becomes very red. Her cackling gives notice the deed is done. Let her, then, have a quiet, obscure place, to lay in.

Fowls should not be allowed to wander much in the laying season; they lay better and more regularly, and the eggs are more easily secured, when confined to their own yard; but, instead of a close, dark, diminutive house, and a contracted 7 by 9 yard, as is often the case, they should have a spacious airy place, properly constructed, and if possible, running water for them.

Springside, Oct. 1859.

C. N. BEMENT.

SULPHUR is one of the best substances for freeing all animals from vermin, by feeding it to them occasionally.

HOW TO ATTAIN DESIRED POINTS OF EXCELLENCE IN FOWLS.

It will be seen that the possession of one bird of either sex among those that will breed in this country will enable the owner, if he is patient and will take the trouble, to perpetuate the race. This was done most successfully by the late Earl of Derby with the beautiful Versicolor Pheasant; and was begun, but not carried out, by the late Lord Hardinge with some Pheasants he brought from the Himalayas. Of all sorts of Pheasants, and of Jungle fowls brought to this country, the cocks only arrive alive, because they are packed with hens in small cages, and they always kill them. If those who are disposed to try to import them will have birds cooped separately, they will get them over alive.

The male bird of whatever sort he may be put with a female of this country that most nearly resembles him; the next year he is put to a hen the produce of the first; the third year he is mated to the produce of the second, and the fourth to the third. By this time the appearance of the cross has almost or quite disappeared, and the produce may be freely mated together. There will at times be vindication of original rules, and the birds will throw back. For this reason the original cock should be kept and used as long as possible.

Now, as this is true of Pheasants, it is equally so of fowls. If Cochins are become faulty in one point—say they are coarse about the head and comb—then choose a cock of undoubted merit in that particular, and mate him with the least faulty hen. The improvement will be at once perceptible; but if the cock be then mated with his daughter, it will be seen that his points are carried out in his progeny. Of course, the same process may be adopted for feather. It would be more frequently done but for the time and care that are required. Where perfection is sought in this, like everything else, it is the reward only of those who will strive for it. Success is not doubtful, as the process we have named has often proved a certainty.—*London Cottage Gardener.*

CURE FOR RINGBONE.—Mr. L. F., Delaware Co., Indiana, wants to know if ringbone can be cured. I would say to him, and the rest of your many readers, that if of not long standing, it can; or at least I have cured them. Take one ounce of iodine and three pints of ninety-five per cent. alcohol, and let it stand four days, or until it is dissolved, shaking it frequently, and saturate the lumps with a common paint brush. Be careful and not get it on your hands or clothes. Put it on three times a day; and if it gets sore, wash clean with castile soap, and omit for a few days. If Mr. C. G. N., of Palestine, Ind., will send a letter to me, at White House, N. J., and state the particulars, I will send him a cure, as it wants different treatment at different stages of the disease.—*JACOB VAN DOREN, White House, N. J., Oct. 24, 1859.*

FOOT ROT IN SHEEP.—Take 1 lb. of blue vitrol, 1 ounce of alum, pulverize them as fine as flour, mix with one table-spoonful of honey and hog's lard enough to make a salve; then pare the foot thoroughly, leaving on no loose hoof, and rub the salve on the sore. All the affected ones should be placed by themselves and the rest carefully watched.

THOUGHTS FOR THE THOUGHTFUL.

From various Sources.

MOST of the diseases of sheep are the consequence of debility.

LAMBS should be separated from old sheep. Old and feeble sheep, separated from the rugged.

SHEEP, as well as other animals, should have access to fresh water, when fed on dry food, in winter.

FARMERS who find it necessary to reduce their flocks, should be very particular in selecting those that they keep, and let none but the poorest go from their farms.

SHEEP IN WINTER should have fresh air, shelter from cold winds, a little exercise, occasional change of quarters, *dry*, clean lodging, and nutritious food. A close, damp, low yard is their abomination.

A CROSS between the South-Down and the Merino makes a very useful and profitable sheep. The wool will *sell* for nearly as much as the Merino, and the lambs will bring more for the butcher.

SHEEP are perhaps the most profitable stock on suitable land, and with good management; but on unsuitable soil and ill-management, they are the least desirable of farm stock. "What the man is worth the land is worth." What the shepherd is worth the sheep are worth.

ALL animals should, if possible, be housed, or provided with shelter. Cattle require much less food when stabled, than when allowed to run at large, as they waste little or none, and comfort is essential to their thrift. More manure is also secured, an object of great consequence to every farmer that understands his true interests. Sheep, if housed, must not be crowded into close stables or houses, as disease is apt to be the result; and all animals require to have their stables well ventilated to prevent the effects of bad air. Horses are better fed from mangers than racks, and sheep should never have their food so that they draw it from above, as the grass seeds and chaff fall upon and fill their wool, injuring it materially.

It must never be forgotten by the farmer that there are works of charity and kindness, that more frequently press their claims upon him during the winter, than at any other time. While his happy family is clustered around the cheerful hearth; while his table is loaded with the bounties which a kind providence, personal industry, and a fruitful soil have given him; while his wood-house is filled, his granaries overflowing, and every reasonable want supplied; he must not forget there are other less favored individuals or families around; children destitute of fire and wood; widows and orphans distressed and destitute, all requiring care, and not to be forsaken while the frosts of winter are upon the earth. For the poor there must be employment; for the destitute there must be a supply; and the honest and industrious, or the unfortunate poor, have claims on the more fortunate, that may not be disregarded. Well directed charity is one of the few acts of life in which both the giver and the receiver are blessed; let no one then forget the poor.

EVERY drop of milk should be drained from the udder at each milking, for two reasons, that the last pint taken from the cow will make more butter than the first quart, and that the cows will afterwards fail to give just as much milk as is left in the udder.

HORSES should always have plenty of litter in their stables; it answers a double purpose; first by absorbing and retaining the salts of the urine that fall upon it in a considerable degree, and thus rendering the manure more valuable; and secondly, by preventing in part that liability to swell, to which the feet and legs of a horse are subjected when standing on a hard or plank floor.

NEGLIGENCE and inattention is as inexcusable in the winter as in the summer; and frequently is productive of worse effects. How often do we see farmers suffer such losses in their flocks and herds from sheer inattention or idleness in the winter, that a year of hard labor and privation will hardly place them in their first position. If cattle and horses were looked to as they should be, or if sheep and swine were not left to get their living by hook or by crook, we should not see so many walking skeletons harnessed or yoked to the plow in the spring, or so many carcasses around the fields and roads inviting the crows to their feast. The prudent, careful farmer will consider the winter as the trying time for his stock, and by shelter, and sufficient food, avert its rigor, and prevent its consequences as far as possible.

LAND and labor are the principal sources of public and private wealth. The more fertility we can impart to the one, and the more intelligence we can infuse into the other, the greater will be the returns they make, and the greater our means of happiness; for it is wealth, rightly employed, that enables us to multiply not only our own, but the comforts and happiness of those around us. Yet it is not a few very rich men, or very wise men, be the aggregate of wealth and talent ever so great, that give prosperity and greatness to a State. It is the general diffusion, among a whole people, among the rank and file of society, of property and knowledge, and the industry, enterprise and independence which they beget, that renders a State truly respectable and great.

CRANBERRY CULTURE.—In reply to the inquiry of S. R. S., in the November number of the *Farmer*, I would say, where there is a sod, pare it off to a sufficient depth to remove all grass roots; set the vines, and keep them clean for two or three years; after which they will take care of themselves.

Low swampy lands are best adapted to the cranberry. Nature teaches this, as you seldom, if ever, see them growing on dry land. It should be sufficiently moist to keep the roots well saturated.

I consider the months of May and June the proper time for setting. They should be set in drills from eighteen to twenty inches apart; all long vines covered every six or eight inches. Wild vines, if they produce well, and the fruit of a good quality, will answer every purpose. I have been east this fall, and saw large meadows which have been transplanted, which are doing well and bearing large quantities of fruit. I find it profitable to grow cranberries.—N. HULL, *Caton, Steuben Co., N. Y.*



PROGRESSED PUMPKIN PRODUCED BY PROF. PUFF'S PATENT PRIMARIES.

THERE are always some people who easily tell
About monstrous vegetation;
And their corn or their pumpkius—their inside or shell—
Surpass all the rest of creation.

We were noticing statements, last week and before,
Of a turnip, too big to be eaten,—
Of potatoes, two bushels at least to each hill,—
And of beets, not at all to be beaten.

We are always unwilling to publish a puff,
As such fellows are trying to blow it;
But we thought that for once we would give them enough,
With the help of our artist and poet.

And we now have decided to tell a great yarn—
One awful exaggeration,—
And our artist has drawn it as big as a barn—
"Some pumpkins" above the whole nation.

We persuaded our poet the falsehood to tell
Of a pumpkin full fifteen feet through,
Which it took two oxen, one horse, and one mule,
To remove from the field where it grew.

Our poet remembers: it was last September—
And the facts (?) in his mem'ry are clinging—
The oxen were drawing, the boys were hurrahing,
And this is the song they were singing:

"Hail to the nitrogen, phosphorus, oxygen!
Furnishing all the components required,
Rendering soils most completely adapted
To aising such pumpkins as *must* be admired.

"Professor PUFF has a most capital warehouse,
For selling new patents, and fixing old soils:
It was there that I bought the ingredients I sought;
And I now raise "some pumpkins" without any toils.

"The seed is for sale at Professor PUFF's warehouse—
The Patent Progressive Primarius seed.
Send for a circular: get the certificates.
The thing is discovered which all farmers need.

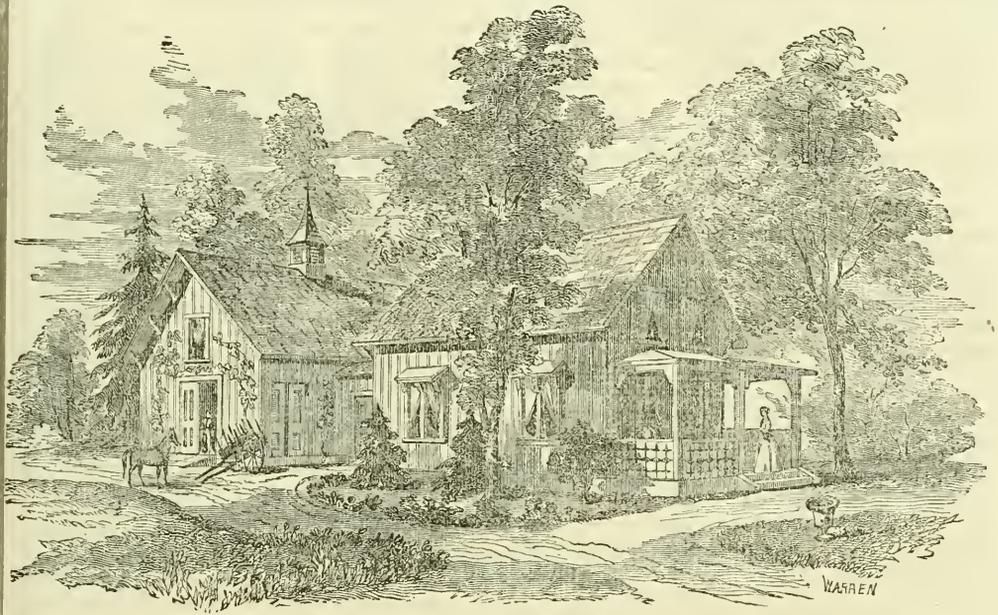
"All crops, at all seasons, without rhyme or reason,
Will grow, if you only Professor PUFF try:
Ammonia, guano, and other progressives,
Will do the thing up, if you only will buy.

"I can truly advise that friend PUFF analyze
The soil of each farm, and find out what it needs,
For twenty-five dollars; a good letter follows,
Telling how the good farmer completely succeeds.

"His salt and lime mixture is a most complete fixture,
Converting the peat into chloride of lime:
The sugar-scum refuse made up into phosphate—
Nitrogenous phosphate—is something sublime.

"Sublime or ridiculous, how he does tickle us!
Enrichers phosphatic will do the thing clean:
Of potash progressive, the fruits are excessive,
And need GIBBS's rotary digging machine.

"Long may Columbia raise, without number,
The fruits of improved superphosphate of lime;
Its products extreme will hold up to esteem
Professor PUFF's name to the end of all time."



DESIGN FOR A SMALL FARM-HOUSE AND BARN.

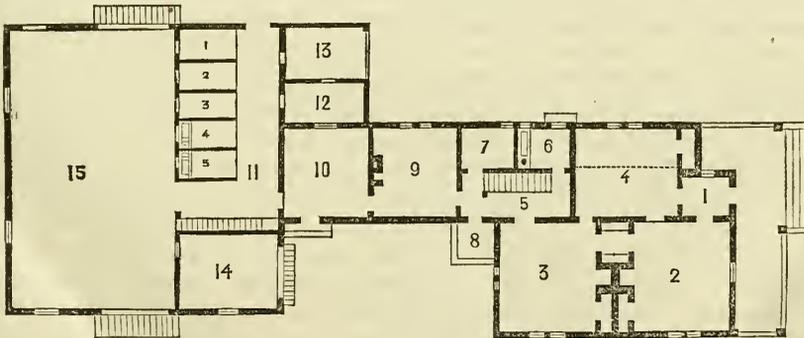
DESIGN FOR A SMALL FARM-HOUSE AND BARN.

We have great pleasure in presenting the readers of the *Genese Farmer* another of Mr. HARNEY's beautiful designs. It is intended to afford complete accommodation for a small New England farm—say from 15 to 20 acres in extent. The following is Mr. HARNEY's description :

The plan comprises house and barn, with woodshed and pig-sty all connected in one range, and having sheltered communication.

No. 1, is the front entry, 6 feet square ; it opens into the parlor, No. 2, 14 feet by 15, and into a bed-room, No. 4, 12 feet by 15. No. 3, is the kitchen, 14 feet by 15, opening into the bed-room, back entry, and through a passage into the parlor. No. 5, is the back entry, 6 feet by 16, containing stairs to cellar and chambers. No. 6, is a pantry, 5 feet 6 inches by 8 feet, opening into the yard. No. 7, is a store-room, and No. 9, a scullery or back kitchen, 12 feet square. No. 8, is a porch over the rear entrance. No. 10, is a wood-shed, connecting directly with the barn.

The barn is 40 feet square, and contains two



PLAN OF GROUND FLOOR.

horse and three cow stalls, No. 11, with a passage behind, and an opening to throw manure into the pig-sty, No. 13. No. 14 is a carriage room, with double doors, opening into the yard, and No. 15 barn room for storage, 24 feet by 39. Room for hay is in the second story, which is well ventilated at the top. The stairs of the hay-loft are at the side of the carriage room, and under them is the harness closet.

The second story of the house contains three bed-rooms, with a large closet to each, besides a large clothes' press in the entry.

CONSTRUCTION.—This design may be built of wood, and covered either in the vertical and batted manner, or in the horizontal manner, with narrow clapboards—the usual New England style. The lower story windows, with the exception of the one in front, are all mullioned windows,

shieldd by hoods supported on brackets. The dotted line on the plan represents the division between the main body of the house and the one-story addition.

COST.—This range of building could be built for about \$1500.

Lynn, Mass.

G. E. HARNEY.

ON THE IMPORTANCE TO FARMERS OF A GOOD EDUCATION.

EDS. GENESEE FARMER:—I consider the great want of farmers at the present time to be a good education. The importance of this will hardly be questioned. Very few farmers have enjoyed the advantages necessary to qualify themselves thoroughly for their occupation. A few years ago, the public opinion on this matter was quite different from what it is now. Still, there are some who need a little waking up on the subject. There was a time when it was thought that a farmer needed only a pair of hands and strength to use them—the head being of little consequence. While the boy who was intended for a mechanic, a merchant or a lawyer, was sent to school, and allowed every opportunity for improvement; the one designed for a farmer was kept at home at some kind of drudgery. He needed only to know how to *cork*. That was to be the business of *his* life, and what need was there for *him* to learn grammar, or algebra, or geometry, or philosophy? In this way his self-respect and respect for his occupation were destroyed. He was never encouraged to think. It was enough for him to know that his father did so and so, and he was to do likewise and ask no questions. Is it any wonder that he should make a dull man and a “bungling farmer?”

Now what I want to say to the farmers of this country is this: Whatever else you fail to do, don't fail to give your boys a good education, and especially those that are to become farmers. Take some good agricultural paper, and give your boys time to read it, as well as some time for amusement, remembering that “all work and no play make Jack a dull boy.” Let them know that a true farmer is as much of a gentleman as the lawyer or the doctor, and *sometimes* more so, although his clothes may not be so fine, nor his hands so soft. Do not suppose that because your son is to be a farmer, he does not need a knowledge of all that is taught in our common schools and academies. If he does not need to use them in his business, the study of them will improve his mind, and not only teach him to think, but to think methodically and correctly; and what is of quite as much importance, he will not feel that he is inferior to his neighbor whose occupation is different from his own. It would be far better if the choice were to be made between a good education and a good farm, to choose the former. Now almost any farmer can give his sons each a good education, while few can give the farms. Let them have the education at any rate, and the farm, if you can, besides.

E. L.

TO RAISE CREAM.—Have ready two pans in boiling water, and on the milk's coming to the dairy, take the hot pans out of the water, put the milk into one of them, and cover with the other. This will occasion great augmentation in the thickness and quality of the cream.

SETTING FENCE POSTS.

EDS. GENESEE FARMER:—In the January number of the *Farmer* for 1859, E. MORTON, of Berrien Co., Ohio, inquires whether fence posts will last longer by being set in the ground top end down. As no one has deigned to answer him, unless an article published, I think, in the March number was intended as an answer. I will give him my experience.

The author of the article in the March number scouts the idea of using wood posts at any rate, and advises the use of *burnt clay* posts. Now this may be an improved sort of post, but there are several farmers, if not more, in our extended country, who are not so situated that they can procure such posts, and must of necessity use wood.

But to my experience. About thirty years ago, I, to test the thing, split two bar posts, side by side, out of a chestnut log. They were eight feet long, eight inches wide, and three thick. One I set butt down, the other top down. At the end of ten years, the one set in butt down was rotted off, and I re-set it in the same hole. At the end of six years, it was rotted off again, and I put in a new one. The other lasted four years longer, when it got split in two, and I took it out and it was about two-thirds rotted off. Sixteen years ago, I set six pairs of bar posts, all split out of the butt cut of the same white oak log. One pair I set butts down, another pair, one butt down, the other top down; the others top down. Four years ago, those set butt down were all rotted off, and had to be replaced by new ones. This summer I had occasion to re-set those that were set top down. I found them all sound enough to re-set. My experiments have convinced me that the best way is to set them tops down.

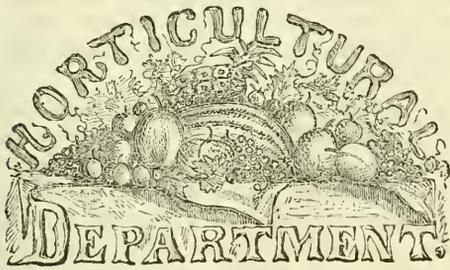
WM. HOWE.

North Almond, N. Y.

A FAST PEOPLE.—At a late agricultural show in England, an American exhibited a fast-trotting Englishman horse, which cantered and trotted remarkably well, but which was a bad walker. A person looking on, after having admired the trotting and cantering, asked, “How about the walking?”—“Walking?” said Jonathan, “well, really I don't know about that; we are not so *slow* in the States as to notice that.”—*American Agriculturist*.

This is all very well and very witty; but it is a great mistake for *farmers* to pay so little attention to good walking horses. A good *walker* is worth more, for general farm purposes, than a good trotter. We were once with an English gentleman, an excellent judge, who was looking at a horse that was offered him for sale; and the man who showed the horse kept whipping him and jerking at the halter to make him prance and look lively. “Let him walk, man, let him walk,” cried our friend, “I want a horse that can walk.”

TO DIVEST MILK AND BUTTER OF THE TASTE OF TURNIPS.—Put into each pail of milk, when fresh drawn from the cows, one pint of boiling water. The heat of the water dispels the odor of the turnip, which becomes volatile as the temperature of the milk is increased.



PROSPECTS OF FRUIT CULTURE.

We are happy to record, at the commencement of this new year, the satisfactory condition, generally, of fruit plantations, and the animated hopes of those engaged in fruit culture. The spirit of horticulture progresses steadily and with accelerating rapidity, among all classes of society. Its practical operations and results are so attractive as to claim the spare moments of the artisan, the merchant, and the professional man, and engross the leisure hours of the man of wealth; while to all those engaged directly in the cultivation of the soil, horticulture is fast insinuating itself to a first rank in attention and importance. Its phases and its phenomena are so varied, and afford so large and free a scope for investigation, for speculative theories and pleasant imaginations, as to make it preëminent among all pursuits as a source of mental gratification. The increased attention which is now bestowed upon fruit culture, is a result produced by the actual success which, from year to year, has attended it.

As a branch of business, in very many localities throughout the country, fruit culture is attracting a large amount of capital and skill. Particular sections are found to be peculiarly adapted to certain classes and varieties of fruit, and the amount of information which has already been gained on this subject enables the planter to proceed with much confidence of final success.

Perhaps no fruit varies more with various soils and climates than the Apple; and in the range of the United States, a vast number of varieties are required to supply the particular wants of all sections. Many new sorts have been produced, and are constantly appearing, which prove themselves eminently superior as local fruits. Agricultural and horticultural societies also are doing much to promote this end; and whoever now engages in fruit culture, in any part of the country, need not go to work altogether in the dark.

The orchard planting of Apple and Pear trees in the Eastern, Middle and Western States increases

rapidly from year to year—the present year especially, the agricultural community seem to have determined to take hold of fruit culture in earnest. The Dwarf Pear controversy, which was carried on during the early part of the season, no doubt attracted the attention of many to this interesting class of trees, who had never before investigated their claims. The requirements of these dwarf trees and the causes of their failure, are beginning to be better understood; the result of which, together with the ample evidences these trees, themselves, afford of their value, has been to induce the planting of large orchards of them.

It is surprising, in the present state of horticultural knowledge, that the subject of which we are now speaking should have caused such hot discussions and expressions of irritated feelings among those who should have been first to explain the apparent contradictory results of Dwarf Pear culture. The failures that have resulted with Dwarf Pear trees should have been anticipated; and now, as we look back, we are surprised that intelligent men could have so entirely overlooked the casualties to which all fruit trees are subject, such as improper propagation, wrong selection of varieties, unsuitable soil, etc., as to have thought of universal and complete success with Dwarf Pear trees, or have been disappointed by reports of unsuccessful results. As a people, like the French, we are too sanguine, and apt to run into extremes; and this characteristic we have fully exemplified in the subject under consideration.

The medium course to be pursued in this branch of horticulture, has happily been found, and that with results gratifying and encouraging, and we shall expect to see numerous thrifty and valuable orchards of these trees amply remunerating the labor of the skilful cultivator. The planting of Pear trees worked on pear stock, or as commonly called standard trees, is rapidly progressing. The Pear tree is found to be well suited to a large range of country, and many of the most valuable sorts come early into bearing. The almost fabulous prices which good pears command, are a tempting inducement to extensive culture; and the demand for these trees at the nurseries is very great.

The Peach crop of Western New York failed again last season, being the second of two consecutive years. The trees, however, are now in perfect health, and if the present winter should be one of comparatively low temperature, we shall undoubtedly have a good crop next autumn. The cause of the death of the buds, is not the extreme cold directly, but the sudden alternations from mild

weather to great cold. It may be that the skill of the cultivator can never provide adequate means to counterbalance or materially modify these vicissitudes of climate; and if so, we shall be compelled to regard the peach as a precarious fruit in this section. This point, however, we are not prepared to admit; but, on the contrary, firmly believe that the intelligence and enterprise of our fruit growers will provide means for the mitigation of these climatic influences, even if they should continue as during the two past winters. It may be well, perhaps, for amateurs to undertake to grow peach trees on walls or trellises, where they can more conveniently afford them protection during their dormant state. Numerous examples that have come under our observation fully justify us in the conclusion that the peach, grown in this way, will yield regular crops.

The interest in the cultivation of the Grape continues unabated, and the great claims which this fruit has, for extensive culture, are becoming fully recognized. Never did fruit-growers take in hand anything which promised more munificent results. Our country, from end to end, with few exceptions, is well adapted to the perfect growth of the various sorts of this most delicious of all fruits. The grape is the fruit for the million. The smallest space of land will allow of its culture; and every village and even city house may have a vine, trained up its sunny side. With little care, the surplus crop may be preserved fresh during the whole winter, or cheaply manufactured into a pure beverage, to take the place of the noxious compounds, everywhere vended as imported wines.

The vineyard, in the Middle and Western, as well as throughout the Southern States, is destined to become one of the most important of agricultural interests. During the past year, the value of some of the more prominent of the new hardy grapes has been fully confirmed, and we have no doubt that, in a few years, the varieties which are now largely in cultivation will be superseded by better and more profitable sorts. Of the characteristics of these new sorts, we do not now propose to speak, as this information has been laid before our readers, in our past volumes, and everything of interest will be brought to notice in future.

We will take this occasion to caution our readers against an imposition which is being practiced by some unprincipled scoundrels, by taking wild vines from the woods, or other worthless sorts, and packing them nicely, and labelling with the names of some of the valuable new kinds, and offering them for sale, in this manner, about the country. The vines, being large and strong, are temptingly offered,

even at high rates, and the purchaser may anticipate in blissful ignorance, until his first crop of fruit, when he will learn to his sorrow the innocent part he has played in the game.

Of the diseases and enemies of fruit trees, there is little that is new to be said. Fruit-growers are constantly showing that most of these evils can, by skill and attention, be either wholly averted, or their effects so modified as to give little cause for serious apprehension. Even the curculio, about whose mischievous habits so much has been said and written, it has been shown may be kept under control by the well-known practice of jarring, so that any one who is well situated for soil and market, need not hesitate to engage extensively in the cultivation of Plums. The use of sulphur for the mildew or fungus, which is produced on various fruits, promises to prove an efficient practice. This operation is one which probably will be fully tested during the ensuing summer, and we would here recommend all fruit-growers, who have had to deal with this disease, to have at hand next season, so as to apply at the first warning, either the dry flowers of sulphur, or the preparations which we recommended in the last volume, and which we will here again refer to:

If one pound of flowers of sulphur, and an equal measure of quick lime, are boiled for ten minutes in a glazed earthen-pot, with five pints of water, hyposulphite of lime is formed, which is very soluble. It should be constantly stirred while boiling. It is then allowed to settle, and the clear liquid is, when cool, ready for use, after being mixed with one hundred parts of water. The vines are syringed with this water. This is effectual, economical, and easily applied on a large scale.

This hyposulphite of lime may easily be obtained by leaching the refuse lime of the gas-works. The hyposulphite is very soluble, and the less water used for the purpose the better, in order to avoid dissolving other substances. It should afterward be largely diluted with water, and applied with the syringe, as before recommended.

If seven pounds of sulphur and one pound of lime are boiled in water for several hours, pentasulphuret of calcium is formed. This substance contains about eighty per cent. of sulphur, and is quite soluble in water. We have never seen it recommended for mildew, but think it eminently worthy of trial. It is the sulphur, and not the lime, that is the effective agent; and the less of the latter in proportion to the former the better. The pentasulphuret of calcium contains more than *ten times* as much sulphur, in proportion to the lime, as the hyposulphite of lime. It approximates closely to a solution of sulphur.

NEVER beg fruit, or anything else you can produce by the expenditure of a little time or labor. It is as reasonable to expect a man to give away the products of his wheat field, as of his orchard or fruit garden.

THE BARTLETT PEAR.

WE here present an engraving of a standard *Bartlett* Pear tree, growing in the grounds of Mr. JOSEPH HALL, near this city. It was planted about twelve years ago. The fourth year after planting, it bore a bushel of fine fruit, and for the last five or six years it has borne at least a barrel each year. The fruit has been sold for \$10 a barrel. The tree has received no extra care or cultivation. It grows on a lawn. It has been winter pruned, the branches being shortened in sufficient to keep the tree in good shape. The fruit is of good size and quality, though, of course, not equal in these respects to that grown on dwarf trees that receive good cultivation.

The *Bartlett* pear originated in Berkshire, Eng., about the year 1770. It was afterward propagated by a London fruit-grower of the name of WILLIAMS, and was called *Williams Bon Chrétien*. It was introduced into this country in 1799, by ENOCH BARTLETT, of Dorchester, Mass., and hence is universally known in America as the *Bartlett* pear. DOWNING says: "It suits our climate admirably, ripening better here than in England, and has the unusual property of maturing perfectly in the house, even if picked before it is full grown. It has no competitor as a summer market fruit."

LABELS FOR FRUIT TREES.—At the nurseries of ANDRÉ LEROY, in France, they use a label made of earthen ware, stamped, before baking, with the name of the fruit, and having a hole in one end through which to pass the wire for attaching it to the tree or plant.

ENGLISH HAWTHORN HEDGES.

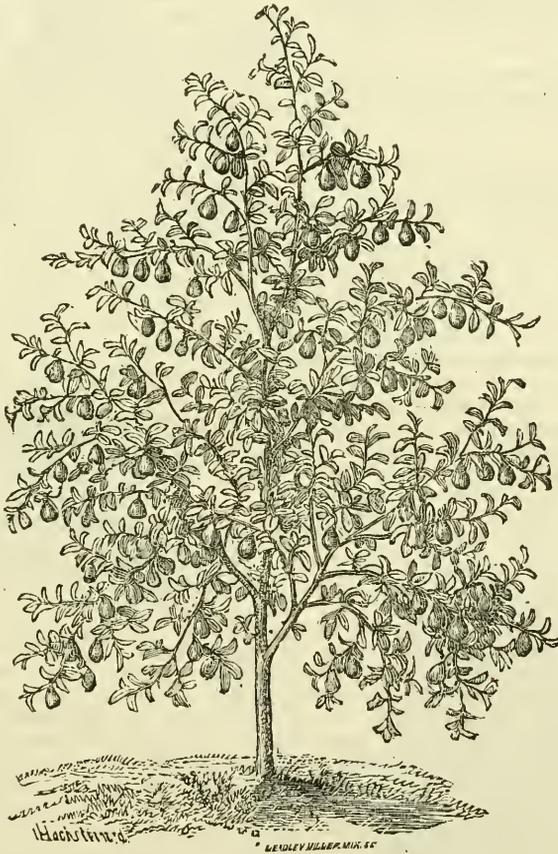
WE make the following extracts from an able article on "fences" in MORTON'S *Cyclopedia of Agriculture*:

Before we enter upon the subject, we deem it desirable to call the serious attention of parties to the important practice of previously preparing the soil on which the hedge is to be planted for a permanent fence. Independently of the pleasure every one must experience on seeing a fine, healthy, thriving, young fence, there is another advantage in favor of well prepared ground, which is the saving of two or three years' dead fencing for the protection of the hedge. This, in some localities, where the materials are scarce, forms an item worthy of consideration.

The fact is, with good plants, success or failure almost entirely depends on the preparation of the soil, and the future removal of weeds, as fast as they appear, for the first four or five years.

The plan which we have found best for general purposes, is to trench the ground, where the soil will admit of it, two spits deep, and three or four

feet wide, along the site of the intended hedge. Then add a coat of well-rotted fold-yard manure, and slightly fork it in. This should be done some time before planting. For agricultural purposes, we recommend new fences to be planted in straight lines. When the time of planting arrives, set out the site of the fence in a straight line, by sticking some stakes into the ground about twenty yards apart, one foot from which, on the side where the ditch is intended to be made, stretch a line, and, with a sharp spade, cut out one side of the ditch. Measure off the width of the intended ditch, and cut out the other side. Then take off the top spit in squares, about six inches deep, if the ground be in pasture, and turn it upside down on the space left between the inner edge of the ditch and the stakes which mark the line of quick. This soil will form a support to the plants when put in.



STANDARD PEAR TREE — BARTLETT.

Now make a furrow, three inches deep, in a line with the stakes, just at the inner side of the sod or soil, in which to insert the roots of the quick. In the annexed diagram, fig. 1, *a* represents the soil that has been trenched and manured; *b*, the soil or

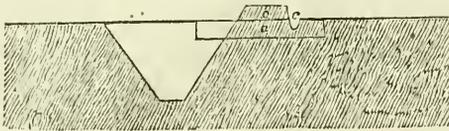


FIG. 1.

sod, takes from the surface of the intended ditch, turned upside down on the edge of the land which has been trenched; and *c*, the furrow in which the plants are inserted.

Prepare the plants by cutting off the tops with a sharp knife, two or three inches above the mark of the soil, which is easily perceived by the light green appearance on the stem. Shorten the tap roots, or any roots that may have been mutilated by the removal, but do not cut away any of the fibres. The plants must then be placed in the trench at equal distances, six inches apart, without using force or pressure to squeeze in the roots. Draw the soil which has been trenched and manured, to the roots, to keep them in their assigned places. Then dig out another spit of the top soil from the site of the intended ditch, break it well to pieces, and level it to the stems of the plants, and tread it firm. The remainder of the soil that is taken out of the ditch is to be levelled in behind the hedge on the field side of the fence, or carted away.

As example is better than precept, we deem it desirable to give our own practice in the cases where we have been invariably successful in obtaining a good and useful hedge.

We have stated that, on naturally dry soil, there is no necessity for a ditch for the purpose of taking off the surface water; and experience shows us that a ditch is not required merely as an assistant to the hedge, or as a secondary fence. On all soils that are not visited with a surplus of stagnant water, the quicks should be planted on the level surface, if there is sufficient depth of soil for the purpose; but where the soil is thin, and greater depth is required, the mould should be turned over from off the place where it has been usual to put a ditch, on to the place where it is intended to plant

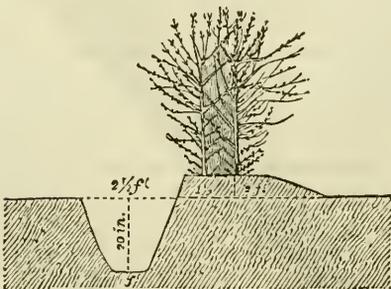


FIG. 2.

the hedge. The quicks may be planted on the surface, or on a double depth of surface soil where

needed, without making ditches and banks. In places where ditches are really necessary, the rubble stones and clay from the bottom of them should never be made use of to pile up a bank on which to plant a hedge. The nature of the soil is sometimes such as to require ditches to be made, and sunk deep into a worthless subsoil; in such cases, if no other means are practical of getting rid of the untempered clay, stones, &c., they should be buried behind the hedge.

The dimensions of the ditch and fence, fig. 2, will be ascertained by a comparison of the figure with the scale on which it is drawn, being three feet one-third in the inch. The quicks were planted in March, 1843, in two rows on the bank, after the top sod from the ditch had been cut out and turned over on the sward of the field; these rows were planted nine inches apart, and the separate plants were six inches asunder in the rows. They were trimmed and cut back, and when planted, they projected about an inch from the surface. The fence, in 1845, was four feet high, and spread over a space three feet six inches in width, at two-thirds of its height from the surface. A dead hedge was made by the side of the ditch in the pasture field, to protect the quicks from stock; which was dispensed with in the spring of 1850, the young hedge now being strong enough to retain any kind of stock. This is on dry soil, of good quality; and it is only on such soils that this plan may be expected to answer well. We have succeeded with a single row of quicks equally as well, but not in so short a time.

HELIOtropES AND THEIR CULTURE.

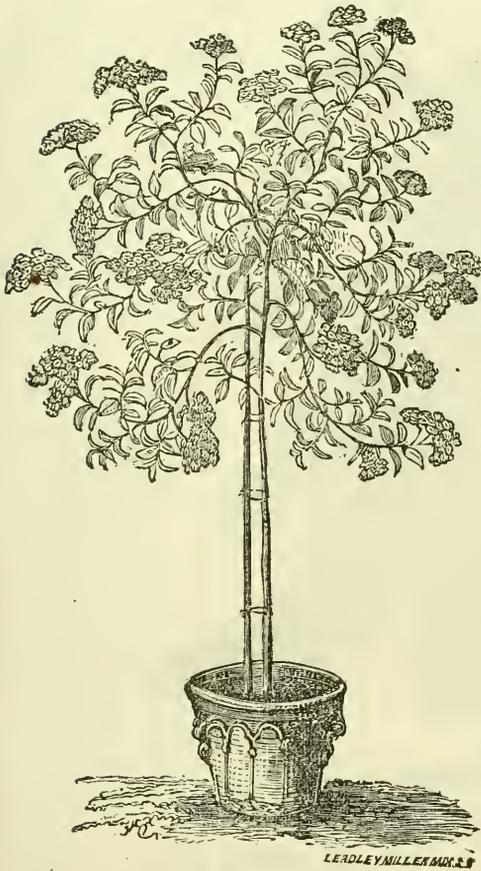
THESE are very important adjuncts of the plant-house in winter; indeed, indispensable. The best kinds for winter work that I have met with are, *paniculatum*, *Beauty of the Boudoir*, *Souvenir de Leige*, and *Gem*. For winter blossoming, these are valuable, and their culture very simple.

They should be propagated annually, by cuttings, taken in August and put into equal parts sand and loam, and placed in a spent cucumber frame, and kept close and shaded until they strike root, and then gradually hardened off. When frost makes its appearance, they should be taken in doors and placed in the coolest part of the green-house until February, when they may be potted off into No. 1 pots, the strongest plants selected for next winter's blooming, and the others kept for the flower garden in the summer. (*Gem* makes the best bedder.) Plants for next winter's blooming should receive high culture in the green-house or frame.

In order to render them bushy, they must be frequently pinched; and this pinching may be continued up to the end of June, when they may be allowed to form heads for blossoming. They may be flowered in seven-inch pots in perfection, although it is very convenient to have a lot in five-inch pots also.

By the first of June they should be placed out of doors, in a very sunny situation, as they abhor shade; and all they require during the summer is regular watering.

Those intended to be grown as standards, should have their strongest stems selected and tied to a stake, and all the eyes pinched out, until the de-



HELIOTROPIUM PANICULATUM.

sired height is reached, and then the top may be pinched off, and four or five eyes allowed to grow at the top. When they are five inches long, they should be pinched as directed for the others. The engraving above shows one grown in this way. *Paniculatum* is the best for this mode of growing, and likewise for covering the back walls of green-houses.

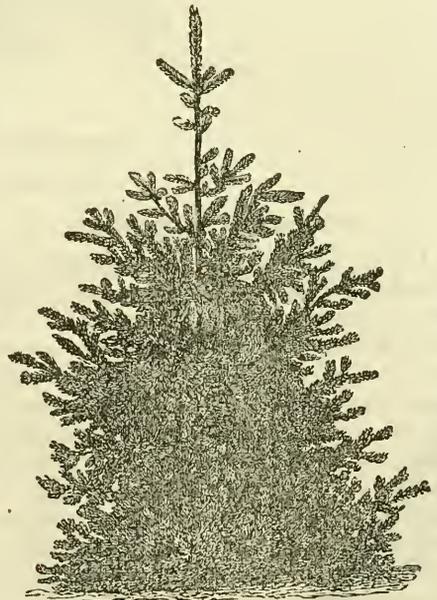
For compost to grow them, nothing is so good as a plain, strong loam. This, with sound drainage, will be found to grow them shorter jointed, and more compact, and will enable them to withstand an hour or two of drought without suffering.

In all their stages, they require full exposure to sunshine, and, when approaching the blooming condition, simply a cool and airy situation in the house.

REPEATED TRANSPLANTING retards the growth of wood, and produces premature maturity in the plant—it converts, for want of abundant nourishment, wood buds into fruit buds. It is calculated to produce early bearing. Frequent transplanting is often resorted to by the florist, in order to induce plants to produce flowers, or to produce an abundance of flowers, and it is found highly efficacious in the balsam, coxcomb, &c.

SMITH'S SPRUCE FIR.

SMITH'S, or the Himalayan, Spruce Fir, (*Abies Smithiana*) is a native of Kamaon and Simore, and, according to Prof. DON, it is chiefly distinguished from *A. orientalis*, a nearly related species from Armenia and Georgia, by its more compressed and slender leaves, and by its larger cones, with broader scales. It was first introduced into England from the East Indies in 1818. Its rate of growth, in British gardens, is nearly or quite equal to the common spruce. LONDON says, "there can be little or no doubt that this tree is as hardy in the climate of Britain as the common spruce; and, as it is unquestionably more ornamental, it well deserves a place in every collection." H. SARGEANT, Esq., of Fishkill Landing, reports the *Abies Smithiana* hardy in the shade at Fishkill, Boston, and New Jersey; very hardy at Newport, R. I.; hardy at Flushing, Long Island, Washington, and Cincinnati; loses its leader in Philadelphia; tender in Clinton, N. Y., and Columbus, Ohio; suffers in Natchez, Miss. It is one of the most beautiful of evergreens, and when hardy, should have a place in the smallest collections.



SMITH'S SPRUCE FIR.

The annexed cut will give an idea of the habit of this tree. It resembles somewhat the Norway spruce, but the foliage is of a lighter green, more densely set on the branches, and more gracefully pendulous.

THERE is perhaps nothing better to protect grape vines in winter than hemlock boughs.



THE WEEPING MOUNTAIN ELM.

THE WEEPING MOUNTAIN ELM.

ABOVE we give a cut of a fine specimen of the Weeping Mountain Elm (*Ulmus montana pendula*) sixteen feet high and four inches diameter. LONDON'S *Arboretum et Fruticetum Britannicum* says: "This is a beautiful highly characteristic tree, generally growing to one side, spreading its branches in a fan-like manner, and stretching them out sometimes horizontally, and at other times almost perpendicularly downwards, so that the head of the tree exhibits great variety of shape. By some, this variety is considered to belong to an American species of elm; but from its large rough leaves, its vigorous young wood and large buds, and, above all, from its flowering at the same time as *U. montana*, and, like it, ripening abundance of seeds, which no American elm whatever does in Europe, we have not a doubt that it is a variety of *U. montana*. For particular situations in artificial scenery it is admirably adapted, for example, for attracting the eye, and fixing it, in order to draw it away from some object which can not be concealed, but which it is not desirable should attract notice."

THE REBECCA GRAPE.

COL. FREAS, of the *Germantown Telegraph* (Philadelphia, Pa.,) says:

"We are satisfied of one thing in regard to this grape, from what has been gathered of its nature and habits the past two seasons, which may be worth communicating. This is, that a southern exposure to the hot sun of summer is too severe for it, and that it requires an opposite exposure, with shade half the day. The best Rebecca grapes we ever saw were raised in this place, in common, low garden soil, with no more preparation than that for cabbages, and the vine was in the most flourishing condition. But we have one or two other instances where the same result has followed the same exposure; and we commend the fact to all who have cultivated this grape without success."

THERE is a Rebecca grape vine in the grounds of H. E. HOOKER & Co., of this city, trained on the south side of a building, which confirms the observation of COL. FREAS. The leaves have a tendency to blister, and the vine is consequently not as thrifty as might be expected from the rapid growth of the young vines in the propagating house. It would seem to require a less sunny exposure.

SHADE TREES, &c.

THERE are few objects in the vegetable world really more interesting and beautiful than our noble forest trees. No country on earth is more blessed than ours; and none can boast of such a variety of magnificent shade trees.

He only who has a knowledge of trees and plants, and who has learned to appreciate their beauties, can enjoy the pleasures of the country. People who have not seen our native trees in open airy situations, under good, careful culture, know nothing of their real beauties. An Elm, or a Tulip tree, crowded up in a thicket, with a tall, naked trunk, thirty or forty feet high, and a mere tuft of leaves on the summit, is a totally different object from the same tree standing on a lawn, with a finely developed form, and luxuriant foliage. Trees, like men, and more than men, show culture and care in the training.

The Elm, with its wide spreading and gracefully drooping branches, is one of the most elegant of forest trees. The Oak has always been held as the emblem of majesty and strength. It is one of the most magnificent, as it is one of the longest lived of the forest tribes, and its timber is valuable for its strength and durability. The Beech tree is truly a fine tree, and were it not so common, its noble appearance would be more generally appreciated.

What tree can be more beautiful than our Horse Chestnut, with its large and glossy foliage, and graceful cluster of flowers; or the Scarlet Maple, with its bright and early blossoms and silvery foliage; or the Shad-blow lighting up the woods with its flowers of snowy whiteness; or the Azalias, that will set the hills in a blaze of bloom; or the Kalmia, with its trumpet-like flowers; or the Mountain Ash, with its flowers in spring and its scarlet fruit in autumn; or the Locust, with its fragrant pink blossoms? Then our noble White Pine, Hemlock, Balsams and Spruce, Hickory, Butternut, and Black Walnut, &c. Why neglect such treasures, and seek for foreign species, not half so grand and beautiful? We would by no means discourage the introduction and planting of rare and fine exotics: they should be mixed with our native trees to give the plantation an air of keeping and cultivation.

There is, we are happy to say, a great taste growing up throughout our country, and especially around cities and villages, for planting shade and ornamental trees. Thousands and thousands of dollars are annually expended in ornamental planting, and whilst rare and costly exotics are gathered from all parts of the world, our own beautiful trees are neglected.

How much might be added to the appearance of many, indeed, of most of our farms and country residences, if proper attention were paid to the planting of shade trees in their appropriate places. Nothing, in our estimation, contributes so much to the pleasantness of a place as the presence of fine trees, and surely no luxury of half the value can be procured for the same price. The cost of procuring and planting a shade tree is so trifling, that on this score at least, there is no excuse for the frequent omissions of duty in this respect. We say duty, because the planting of trees, particularly fruit trees, is obligatory upon every one who has enjoyed the labors of his predecessors in the same direction. Every generation is to a great extent

dependent upon the one which precedes it, for its supply of fruit and shade. But there is another light in which the planting of fruit and shade trees may be regarded as a duty. The decrease of insectivorous birds, and the consequent alarming increase of destructive insects is in a great measure attributable to the fact that one by one, the trees that offered a refuge have been cut away, and these useful little fellows, properly indignant not only at this decided want of taste, but total disregard of their comfort, have taken up their abode in other sections, never to return until their favorite haunts—trees—are returned to them. Handsome fruit and ornamental trees judiciously planted not only advance the beauty but add greatly to the value of farms.

C. N. BEMENT.

Springside, December, 1859.

Ladies' Department.

HINTS TO HOUSEWIVES.

VESSELS intended to contain liquid of a higher temperature than the surrounding medium, and to keep that liquid as long as possible at the highest temperature, should be constructed of materials which are the worst radiators of heat. Thus, tea urns and tea pots are best adapted for their purpose when constructed of polished metal, and worst when constructed of black porcelain. A black porcelain tea pot is the worst conceivable material for that vessel, for both its materials and color are good radiators of heat, and the liquid contained in it cools with the greatest possible rapidity. On the other hand, a bright metal tea-pot is best adapted for the purpose, because it is the worst radiator of heat, and therefore cools as slowly as possible. A polished silver or brass tea urn is better adapted to retain the heat of the water, than one of a dull brown color, such as is most commonly used. A tin kettle retains the heat of water boiled in it more effectually if it be kept clean and polished, than if it be allowed to collect the smoke and soot to which it is exposed from the action of the fire. When coated with this, its surface becomes rough and black, and is a powerful radiator of heat. A set of polished fire irons may remain for a long time in front of a hot fire, without receiving from it any increase of temperature beyond that of the chamber, because the heat radiated by the fire is all reflected by the polished surface of the irons, and none of it is absorbed; but if a set of rough, unpolished irons were similarly placed, they would become speedily so hot, that they could not be used without inconvenience. The polish of the fire irons is, therefore, not merely a matter of ornament, but of use and convenience. The rough, unpolished poker, sometimes used in a kitchen, becomes speedily so hot that it can not be held without pain. A close stove, intended to warm apartments, should not have a polished surface, for in that case it is one of the worst radiators of heat, and nothing could be contrived less fit for the purpose to which it is applied. On the other hand, a rough, unpolished surface of cast iron, is favorable to radiation, and a fire in such a stove will always produce a most powerful effect.—*Dr. Lardner on Heat.*



New Advertisements this Month.

Improved Prairie Land for Sale—W. H. Gardner, Leland, Ill.
 Stock or Dairy Farm for Sale—P. V., Perrysburgh, N. Y.
 Descriptive Seed Catalogue—J. M. Thorburn & Co., New York.
 Seeds at Wholesale—J. M. Thorburn & Co., New York.
 Rural Empire Club—I. W. Briggs, West Macedon, N. Y.
 Hungaria. Grape Slips—John Kolber, New York.
 Portemer Vils, Nurseryman, Gentilly, France—Paul Bossange, agent, New York.
 American Stock Journal—D. C. Linsley, New York.
 Seeds of Evergreen Trees and Shrubs—J. M. Thorburn & Co., New York.
 A Complete Grist Mill for \$20—Hodges, Free, & Co., Cincinnati, Ohio.
 Grae Greenwood's Little Pilgrim—Leander K. Lippincott, Philadelphia, Pa.

On his *Thirtieth Birthday*, kind reader, the GENESEE FARMER comes to you with our warmest "compliments of the season." He needs no formal introduction. We trust he will be recognized and treated as an old friend. Give him a good country welcome. Take him round and show him to your neighbors and friends. He likes the society of intelligent farmers and fruit-growers. He is especially fond of boys, and is particularly flattered when the ladies show him any attention. If you are going anywhere on a visit, or on business, take him along and introduce him; and if any one manifests a wish for further acquaintance, send us their names.

Whatever kindness you may be able to show him, we shall esteem as a personal favor.

NOTES ON THE WEATHER FROM NOVEMBER 15TH TO DECEMBER 16TH, 1859.—Heat, or caloric, is the mighty power that makes the climate and the weather. Let all caloric be removed or annihilated, and the earth would be a dead waste, an awful desolation. Let it cease to produce changes in the atmosphere, or on the earth or its waters, in evaporation from land and sea, in rains and snows and dews and winds, all life would stagnate, and the pulse beat no longer, all would be desolation. The weather would be ever uniform, and find none to wonder or to complain at its changes.

The heat of the last half of November, exceeded the average for 22 years by nearly 5°, while the month was 3° above the mean. The first was 39.1°, and for the month 40.7°. The rain of the month was 1.93 inch, or about half the average.

The Indian summer was for 9 days in the first half, and about 7 days in the last half. Very little snow fell in the month. A violent gale from the west commenced on the 25th at Chicago, about 5 P. M., at Buffalo at 8 P. M., and at Rochester at 11 P. M., and swept onward to the Atlantic. In the three places the wind was heavy, and damage done at the west. Here it was strong through the night, and also over Lake Ontario. The month was warm at its close, and the canal was not frozen yet from Albany to Buffalo.

The hottest day in the last half was the 18th, 65° at noon, and 55.7° for the day; the coldest was the 24th, 29° at noon, and 27.7° for the day. The cold of the 20th was more severe at the west and south. So the cold of the 14th was far more severe on the 12th in Nebraska Territory, being then, on Deer Creek, north of Fort Laramie, several degrees below zero, and moving eastward.

For the first half of December, we find different weather. Though the last week of November was warm, and the 1st day of December was warmer yet, the 2d became cool, and the next colder yet, and a still colder period on the 8th, 9th, and 10th, the thermometer falling to 14° here, and below zero on the 7th at Chicago; the west again showing the most severe weather. On the 13th our cold was 3° with four inches of snow, and tolerable sleighing from the 11th. At Montreal on the 11th, the cold was 10° below zero, and good sleighing for several days previous.

The average of the first half by thermometer, is 25.1° which is 6° below the mean for 22 years, and gives us, for so much of December, a season unusually cold. The canal was free of ice till the 3d, and was fully frozen and closed on the 7th.

The average heat of 1859 for 11 months, is a little above the mean for 22 years. The months which had their temperature below the average, are April, June, July, September and October. Frost has occurred in every month of the eleven. Though much injury was done by it to the crops in June, the evil is not so great as was feared. If the insect, which destroys wheat, was killed by it, as seems very probable, immense advantage has been gained. Except in hay, the average yield has been realized, and in many fruits a large product has resulted. On the whole, the seasons have been favorable for the products of agriculture.

WEATHER IN ILLINOIS.—The month of November has been about as usual in past seasons, with the exception of being not quite as warm as in past years. The month stands at 35.16°, being over 3° colder than the usual average. The first half gives 39° as the mean. From the 3d to the 5th was very smoky—the smoke of the 7th and 8th was so dense that objects could not be designated at half a mile distant—and five days entirely cloudy. The 11th, 12th, and 13th, were cold and stormy, and snow fell to the depth of 3 inches. Thermometer at 12° on the night of the 12th. The last half gave a mean of 31.33°—highest, 46°; lowest, 17°; both of which were on the 28th day of the month. During the month there were eleven days in which there fell either rain or snow; fifteen days entire cloudy; and on the night of the 25th a violent gale, almost, or quite a hurricane in some parts of the State. In Peoria some buildings were unroofed, others blown down; also in Chicago a number of buildings and chimneys were blown down; and in many places in the State light buildings were blown over and some destroyed, fences were laid prostrate, some standing cars were blown off the track, and some loss of life.

The prevailing wind S. W. Amount of cloudiness, 6-10. Observations taken at 7 A. M., 2 P. M., and 9 P. M. Heavy thunder and vivid lightning during the night of the 30th. —E. BABCOCK, *Marengo, McHenry Co., Ill., Dec. 1859.*

WESTERN NEW YORK FRUIT-GROWERS' SOCIETY.—The Annual Meeting of the Fruit-Growers' Society of Western New York will be held at the Court House, in Rochester, on Wednesday, 4th of January, 1860.

RECEIPTS.—We send receipts whenever desired; but it is unnecessary. The paper is its own receipt. It is never sent, except to a few personal friends, till paid for. *We never send a bill.*

AGRICULTURAL LECTURES AT YALE COLLEGE.—It is proposed to have what may be termed a great agricultural "protracted meeting" at Yale College during the present winter, to last throughout the whole month of February. The exercises are to consist of lectures by leading reliable men, eminent in the different departments of agriculture, horticulture, stock-raising, &c. About eighty lectures are provided for, each lecture to be followed by conversational exercises, questions to the lecturers, and discussions. The course will commence February 1st. Three lectures will be given each day during the four weeks of the course. Twenty or thirty gentlemen, well known in agriculture, beside the Professors in Yale College, are engaged to take part in the exercises as lecturers, while numerous other eminent agriculturists and horticulturists have expressed their intention to be present and participate in the discussions.

FIRST WEEK—*Science in its relations to Agriculture.*—Chemistry, Prof. S. W. Johnson; Meteorology, Prof. H. Silliman; Entomology, Dr. Asa Fitch; Vegetable Physiology, Daniel C. Eaton, Esq.

SECOND WEEK—*Horticulture.*—Pomology (in general), Hon. Marshall P. Wilder; Grapes, Dr. C. W. Grant; Berries, R. G. Pardee, Esq.; Fruit Trees, P. Barry, Esq.; Fruits as Farm Crops, Lewis F. Allen, Esq.; Agricultural Chemistry, Prof. S. W. Johnson.

THIRD WEEK—*Agriculture proper.*—Drainage, Hon. H. F. French; Grasses and Irrigation, J. Stanton Gould; Cereals, Joseph Harris; Hops, Tobacco, &c., Prof. Wm. H. Brewer; Cultivation of Light Soils, Levi Bartlett, Esq.; English Agriculture, Luther H. Tucker, Esq.; Agricultural Statistics, Prof. J. A. Porter.

FOURTH WEEK—*Domestic Animals.*—Principles of Stock Breeding, Hon. Cassius M. Clay; Stock Breeding in the United States, Lewis F. Allen, Esq.; Breeding of the Dairy, Chas. L. Flint, Esq.; Different Breeds of Horses, Sanford Howard, Esq.; Horse Breeding and Training, Dr. D. F. Gulliver; Root Crops and Sheep Husbandry, T. S. Gold, Esq.; Pisciculture, Dr. John C. Comstock; Rural Economy, Donald G. Mitchell.

Other subjects will be presented which it was not convenient to designate in the list. The whole is to be free, except the nominal charge of say ten dollars or less to meet the necessary expenses of lecturers and other incidentals. The occasion will doubtless be one of great interest to cultivators generally, and call together a large attendance from all parts of the country. Circulars giving further particulars may be obtained on application to Prof. JOHN A. PORTER, New Haven, Conn.

ELIZABETH GRAPE—Correction.—In our notice of this new grape last month, the word *found* was substituted for *feared*, in the sentence,—*this plant sprung up, was grown in the house three or four years, as it was feared that it might not be sufficiently hardy for the climate.* A very wrong impression is conveyed by using the word *found* for *feared*, as above. The vine is as hardy as the *Isabella*.

THERE ARE MANY YOUNG MEN who could not do better than to act as agents for the *Genesee Farmer*. A few days spent in soliciting subscriptions among the neighbors would secure one of our largest Cash Premiums. All that is required is to show them a copy of the paper, and tell them its marvellously low price.

THE JANUARY PREMIUMS.—The time for competing for our January Premiums expires on the fifteenth of January. It will soon be here. Let every one of our friends send in all the subscriptions they can before that time, whether they intend to compete or not. Many have hitherto taken premiums who had no idea of doing so.

The Premiums *will be paid*, whether there is any competition for them or not. Send in the subscriptions as fast as you get them. We will keep an account of the number, and those who send in the twenty-one highest lists by the fifteenth of January, will be awarded the premiums.

Our twelve January premiums in 1858 were taken as follows: A club of 29 took a premium of \$5; 31, \$6; 33, \$7; 34, \$8; 36, \$9; 38, \$10; 40, \$11; 42, \$12; 56, \$13; 63, \$14; 91, \$15; 107, \$20.

The January premiums for 1859 were taken by clubs of 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 49, 55, 60, 70, 74, 83, 97, 107, 116.

A club of 23 took one of the April premiums of last year. This year there are *twenty-one* Cash premiums, amounting to \$235. See last page of this number.

ADVERTISING IN THE GENESSEE FARMER.—MESSRS. HEDGES, FREE, & Co., of Cincinnati, writes under date of Dec. 10th? "We find your paper a most invaluable medium for communicating with the farming community. We never fail of a hearty response whenever we advertise in it."

This is undoubtedly true, and can not well be otherwise from our large circulation. Our rule of strictly excluding patent medicines and all advertisements of a deceptive character, also renders the *Farmer* one of the best mediums for advertising everything of value and importance to farmers and horticulturists in all parts of the United States and Canada.

SOME of our agents wish us to send the paper on trust. We have no doubt they would pay us; but to comply with their request, would be to violate our invariable rule of requiring pay in advance. Our average profit on a yearly subscription is not more than five cents. If the *Farmer* was a dollar a year, we might afford to keep accounts and send bills, as some other papers do; but we desire to furnish a good and reliable agricultural journal *at the lowest possible price*; and to do so, must adhere to the old rule of advance payment.

THERE is not a town in the United States or Canada where a good list of subscribers could not be obtained for the *Genesee Farmer*. All that is necessary is for some friend to exhibit a copy of the paper. It is so cheap that every farmer can afford to take it, even though they subscribe to several other papers.

THE friends of the *Genesee Farmer* will be glad to hear that its prospects were never so bright as at the present time. We are daily receiving letters assuring us that the *Farmer* never gave better satisfaction than at present. Its marvellously low price commends it to all. We expect a big list of subscribers for 1860.

CHEAP READING.—One volume of the *Genesee Farmer* contains 384 pages, and the *Rural Annual* 120 pages. In clubs of eight, we furnish the *two* for half a dollar. *Five hundred and four pages for fifty cents!* What farmer need be without good reading for himself or his children?

REVIEW OF THE MARKETS.

GENESSEE FARMER OFFICE,
ROCHESTER, N. Y., DEC. 14, 1859.

SINCE our last report, there has been a steady and active demand for flour, and although prices have been somewhat irregular, the sales have been liberal for both local and shipping account. Many transactions of a speculative character have also occurred, which can scarcely be regarded as sales in the practical sense of that term; they had, nevertheless, a tendency to enliven the market and sustain prices. The advance since our last quotations, is from ten to thirty cents per barrel, and the market evinces a more steady and continued healthy tone than has been apparent for some time past. The receipts, recently have been on a liberal scale, and the stock is now large. The close of navigation, however, will reduce the receipts to a point which, during the winter, will not, in all probability, exceed the wants of the local trade. And the export demand will doubtless be equivalent to the present accumulation of stock, if the market should continue in a state to encourage it.

Wheat is less active at present than it has been; and notwithstanding the firmness of holders, lower prices have in some instances been accepted. The supply is large; and the slight probability of the next advices from Europe being of a less favorable character, induces operators to act with caution. The receipts of Southern being light, the market is firm for that description, for Red especially. Corn is firm, and in good demand for the home trade and for the Eastern market; the stock is light. Barley and Rye are steady with a good supply and fair demand. Oats are in good demand; but with a large stock, buyers are free from excitement. White Beans are firm, and in good request.

We have on a former occasion expressed a doubt of the estimates, made and published, of the last crop of both wheat and Corn. We still think the product will fall far short of the estimated amount.

There has been a speculative movement manifest in the Pork market, and purchases for future delivery have been made at advanced rates. This feeling has subsided for the present, and the market is dull. Dressed hogs are more freely offered, and the price is higher. Lard is scarce and firm. Beef is in fair demand and good supply. Butter and Cheese are plenty with a moderate inquiry.

The average quality of Beef Cattle offered has been much better of late than heretofore, and the advance in price is equal to the improvement in quality.

The Wool market is quiet but firm; the demand, though limited, is quite equal to the supply.

ROCHESTER MARKET.—Dec. 14.

FLOUR—Market quiet; superfine, \$4.75@5.50; extra, \$5.75@6.50. Buckwheat Flour \$2 per 100 lbs.

GRAIN—Wheat inactive; holders are firm and buyers are not willing to concede; white, \$1.35@1.40; red, \$1.15@1.25. Corn, 75c. Oats, 35c@37c. Barley, 55c@60c. Rye, 65c@70. Buckwheat, 50c. White Beans, 65c@70c.

SEEDS—Clover, \$5. Timothy, \$2.25@2.50. Flax, \$1.35

PROVISIONS—Mess Pork, \$17@18 per bbl. Hams—smoked, 11c. Shoulders do, 9c. Lard, 12c. Butter—fresh, 18c@19c; do firkin, 16c@17c. Cheese, 9c@10c per lb. Eggs, 17c per dozen. Chickens, 6c per lb. Turkeys, 5c per lb. Potatoes, 31c@40c. Beef, 3c@6½c per lb. by the quarter. Mutton, 3c@4c by the carcass. Dressed Hogs are coming forward more freely and are higher; \$5.50@6.25 for light, and \$6.50@7 for heavy.

APPLES—31c@50c per bushel.

CATTLE MARKET—Beef cattle, \$3@4.50, live weight. Sheep, \$2.50@4 each. Lambs, \$1.50@2.25 each.

HIDES—laughter, 5c. Calf skins, 10c per lb. Sheep pelts, \$1.25@1.62½ each. Tallow, 7½c.

HAY—\$1.60@2.00 per ton.

NEW YORK MARKET.—Dec. 14.

FLOUR AND MEAL—The market for State and Western Flour is less active and lower. State superfine, \$5.05@5.15; extra do, \$5.20@5.35; Western superfine, \$5.05@5.15; extra do, \$5.20@5.35; double extra do, \$6@6.75. Ohio round hoop, \$5.60@5.75. Canadian firm at \$5.50@6.50 for the range of extras. Southern Flour steady. Baltimore superfine, \$5.65@5.80; extra do, \$5.52@5.65. Brandywine, \$6@6.12½. Georgetown, \$5.80@6.50. Petersburg City, \$6.35@6.87. Richmond City, \$6.50@6.75. Gallego and Haxall, \$5. Rye Flour dull at \$3.60@4.50 for fine and superfine. Corn meal lower. Jersey, new, \$3.55@4.10. Wheat, quiet, and holders, to realize, submit to a decline. Milwaukee club, \$1.20. Chicago spring, \$1.15. Rye less

active at 89c@90c. Barley firm at 79c@80c for State; Canada East, 78c@82c; Canada West, 85c. Oats active at 41c@43c for Virginia; 42c@44c for Jersey, Delaware, and Pennsylvania; 46c@47c for State, Western, and Canadian. Corn firm at 85c@92c for new Southern yellow, and 95c@96c for old do. White Beans are firm and in demand at \$1.20@1.25. Canadian, 80c@85c.

SEEDS—Clover, 8c@8½c per lb. Timothy, 8c@8.25 for mowed, and \$2.25@2.50 for reaped per bushel. Flax, \$1.55 for rough American. Red top, \$2.50@2.62½ per five bushel bag.

PROVISIONS—Pork dull. Mess, \$16.37½@16.50; Prime, \$17.50. Mess has been sold for future delivery at \$17. Beef steady at \$5@5.50 for old and new country m-ss, and \$4@4.50 for prime do; old repacked Western, 8c@8.50; new do, 9c@10; new extra mess, \$10.50@11 double extra do, \$11.50@12. Beef hams, \$4.50 for Western. Bacon quiet at 9c. Cut meats inactive at 9½c@10c for pickled hams, and 7c@7½c for shoulders. Lard firm at 10½c@11c, and 11½c for choice lots. Butter—Ohio, 11½c@12c; State, 14c@22c; Orange County, 25c@28c. Cheese, 8c@11c per lb. Potatoes are plenty. Peachblows, \$1.12½@1.50; Mercers, \$1.50@1.62½; Junes and Western Reds, \$1.12½@1.25 per bbl. Nova Scotia, 45c@50c per bu.

CATTLE MARKET—Beef cattle of first quality, 9½c@10c; medium, 7½c@8c; ordinary, 6c@7c; extra good, 10½c@10½c per lb. Veal calves 6c@7c per lb. live weight. Sheep and Lambs average about \$3.75@4 per head. Some very extra sell at \$5@7.00 each. Corn fed Hogs, 5½c@5½c per lb. gross.

WOOL—Native Fleece, 40c@65c; pulled, 38c@52c per lb. as to quality.

PHILADELPHIA MARKET.—Dec 12.

FLOUR AND MEAL—Market inactive for Flour. Superfine, \$5.25@5.50; extra and family brands, \$5.75@6.25; fancy, \$6.50@7. Rye Flour scarce at \$4.37½; Corn Meal, \$3.75 for Pennsylvania.

GRAIN—Wheat in moderate demand at \$1.37@1.45 for white and \$1.30@1.32 for red. Rye active at 93 for Pennsylvania. Corn firm at 78c@80c for dry new yellow, and 75c@76c for new white; old yellow, 92c@93c; old white, 90c. Oats firm at 41c@43c for Southern; 44c@45c for Pennsylvania. Barley, 50c@55c. Buckwheat, 55c@57.

SEEDS—Clover, \$4.50@4.75 from wagons; \$5@5.25 from store. Timothy, \$2.40@2.50. Flax, \$1.55 per bu-hcl.

PROVISIONS—Mess Pork \$17@17.50; Dressed Hogs, \$6@8 per 100 lbs. Beef dull at \$15 for city mess; beef rounds, \$15.50@15.75; Western mess, \$10.50@10.75 per bbl. Bacon—sides, 10½c; Shoulders, 5½c; Hams, 12c@12½c for city smoked. Green hams in pickle, 10½c per lb. Lard steady, 11c@11½c for bbls and tierces, and 11½c@12c for kegs. Butter 10c@12c for packed, and 16c@17c for roll. Cheese 10½c@11½c per lb. Eggs 20c per doz.

FRUIT—Green Apples, \$2.50@3. Cranberries, \$12@15 per bbl. Dried apples 6c@6½c; dried peaches, 7c@10c for unpared, and 11c@15c for pared per lb.

CATTLE MARKET—Beef cattle firm at 8c@9½c for prime quality; 7c@8c for medium; 6c@7c for common; and 3c@4c for stock cattle. Extra cattle sold as high as 10c. Sheep, 8c@8½c per lb. dressed.

WOOL—Market firm, with small transactions at former rates.

BUFFALO MARKET.—Dec. 14.

FLOUR—Market steady with a fair demand. Fine, \$3.75@4; superfine, \$4.50; extra State from spring wheat, \$4.75@5; Upper Lake extra, \$5@5.25; Indiana and Ohio extra, \$5.50@5.60; double extra do, \$5.75@6.25; Canadian, 8c@8.50@9 for the range.

GRAIN—Market quiet and steady for Wheat. White in small lots, \$1.37; Milwaukee and Canada Club, \$1.50@1.6; Chicago spring, No. 2, \$1.02@1.03. Corn steady at 60c@62c for new; 65c@70c for kiln-dried; damaged, 52c. Barley, 60c@65c. Rye, 50c@52c. Oats quiet and firm at 37c@38c. Peas dull at 60c.

SEEDS—Timothy, \$2.37.

PROVISIONS—Market quiet. Mess Pork, \$16 for heavy and \$15 for light. Lard, 10½c@11c. Dressed Hogs, \$6@6.50 per 100 lbs.

CHICAGO MARKET.—Dec. 12.

FLOUR—Market firm, with a light stock. Sales at \$4.50@4.75.

GRAIN—Wheat dull. No. 2 spring, 55c@97c; No. 1 do, \$1.00@1.01; Iowa club, \$1.00. Corn quiet but firm. No. 1, 41c@43c. Barley steady at 53c@55c. Rye scarce at 75c@77c. Oats active at 41c@43c.

SEEDS—Clover, \$4.50. Timothy, \$1.90@2.10. Hungarian, 65c@75c. Flax, \$1.00@1.10.

PROVISIONS—Mess Pork inactive at \$15.00@15.50. Mess Beef, \$7.00@8.00. Beef hams, \$12.00. Tongues, \$13.00. Bulk meats in fair request at 7c@7½c for sides; 5c@5½c for shoulders. Cut meats dull; green hams, 7c; shoulders, 5c. Dressed Hogs in fair demand at \$5.00@6.00, according to quality and weight. Lard steady at 10c@10½c. Butter dull at 11c@13c for firkin, and 14c@17c for dairy. Cheese 10c@10½c for Western Reserve; 10½c@12c for Hamburg. Eggs scarce at 16c@17c per dozen for fresh. Potatoes 35c@48c, for common to good, per bushel. Dressed Turkeys, 7c@7½c per lb. Dressed Chickens, \$1.75@1.85 per dozen.

FRUIT—Green Apples, \$2.25@3.00. Cranberries firm at \$12@12.50 per barrel. Dried Apples in good demand at 6½c@7c. Dried Peaches, 9½c@10½c for unpared, and 12c@15c for pared, per lb.

CATTLE—Beef Cattle firm at \$2.25@3.00, as to quality. Hogs, \$4.00@5.00 per cwt. gross.

HIDES—Green county, 5½¢@5¾¢; green salted, 6¢@6½¢; dry salted, 10¢@11¢; dry flint, 13¢@13½¢. Calf skins, Sc. Tallow, 10¢ per lb.

WOOL—Market quiet at former quotations.

CINCINNATI MARKET. — Dec. 12.

FLOUR—Quiet; superfine, \$5.50@5.40; extra, \$5.50@5.75. **GRAIN**—Prime white Wheat \$1.25@1.25; prime red, \$1.15@1.20. Corn firm with a good demand at 5¢. Rye firm and in demand at 50¢. Barley active at 75¢ for prime fall. Oats in active demand at 52¢@53¢.

SEEDS—Clover active at \$4.75. Timothy nominal. Flax firm at \$1.10.

PROVISIONS—Mess Pork, \$16.00@16.50 and dull. Bulk meats dull at 6¢@5¢. Green hams, 7½¢@8¢. Lard inactive at 10¢@10½¢. Butter in good demand. Central Ohio, 16¢@17¢; Western Reserve, 15¢@20¢. Cheese active and firm at 9¢ for Western Reserve, and 11¢ for English dairy. Eggs in good demand at 19¢ per dozen. Green Apples firm at \$1.75@2.75 for fair to choice. Potatoes firm at \$1.60, for prime Neshannocks, per barrel.

FRUIT—Dried Apples, 5½¢@6½¢. Dried Peaches, 9½¢@10½¢ per lb. Cranberries quiet at \$11.00@14.00 per barrel.

CATTLE—Beef Cattle in good demand, and market firm. Inferior, \$2.00@2.50; fair to good, \$2.75@3.25; prime, \$3.50@3.90 per 100 lbs. gross. Sheep, \$3.00@5.00 per head. Lambs, \$1.50@3.00 per head. The supply of Hogs is large, and as money is tight the market is unsettled. We quote, \$6.35@6.40 per 100 lbs. net.

HIDES—Flint, 12½¢@13¢; dry salted, 11½¢@12¢; green salted, 6½¢@7¢; green, 6¢@6½¢ per lb. Sheep pelts, 75¢@1.00 each. Tallow, 10¢@10½¢ per lb.

HAY—Prime Timothy, \$17.00@17.50 per ton.

TORONTO MARKET. — Dec. 12.

FLOUR—Superfine, \$4.50@4.60; extra, \$5.00@5.50; double extra, \$5.75@6.25.

GRAIN—Wheat active at \$1.20@1.30 for fall; spring wheat, \$1.00@1.05@1.10. The latter for samples suitable for seed. Barley steady at 60¢@65¢. Rye in good demand at 75¢@80¢. Oats quiet at 37¢@39¢. Peas in good demand at 55¢@57¢ per bushel.

PROVISIONS—Fresh Butter is scarce at 20¢; first quality tub, 17¢; second do, 13¢@15¢ per lb. Eggs scarce at 17¢ per dozen. Apples, \$2.00@2.50 for best quality, and \$1.50 for common per barrel. Potatoes, 35¢@40¢ per bushel. Salt, \$1.13@1.15 per barrel for American on the dock, and on the cars. Liverpool salt in bags at 95¢@1.00. Dressed Hogs active at \$5.75@6.00 for light, and \$6.25@7.00 for heavy, per 100 lbs.

POULTRY—Turkeys, 37½¢@75¢ each. Geese, 30¢@50¢ each. Ducks, 30¢@40¢ per pair. Chickens, 25¢@35¢ per pair.

CATTLE—First quality Beef Cattle, \$6.00@7.00; inferior, \$3.50@4.00 per 100 lbs. Sheep \$4.00@5.00. Lambs, \$2.00@2.50 per head.

HAY—Supply limited; \$20@30 per ton. Straw—scarce at \$12@14 per ton.

LIVERPOOL MARKET. — Nov. 29.

FLOUR AND MEAL—Western canal Flour, \$5.52@5.76 for old, and \$6.30@6.60 for new; Philadelphia, Baltimore, and Ohio, \$5.76@6.48; Canadian, \$6.21@6.72; extra qualities, \$6.72@7.44; sour, \$5.04@5.52. Corn Meal, \$4.56@4.50.

GRAIN—American white wheat, \$1.51@1.66; red do, \$1.40@1.51; Canadian white, \$1.44@1.58; do, red, \$1.30@1.44. Indian corn—white, \$1.05@1.14; yellow, 96¢@99¢; mixed, 96¢@97½¢. All per bush. of 60 lbs.

Market dull and declining for both Flour and Grain.

WOOL—Domestic fleece, 11¢@35¢. Colonial and Foreign without change to notice; but with an upward tendency.

LONDON MARKET. — Nov. 28.

FLOUR—American sour, \$5.52@6.48; sweet, —.

GRAIN—Wheat—American white, \$1.29@1.47; do red, \$1.26@1.41. Indian corn—white, 98¢@1.02; yellow, 90¢@96¢, per 60 lbs.

Both Flour and Grain have a downward tendency.

WOOL—Steady, with no change in prices to notice. Holders are very firm in anticipation of higher rates.

BRIGHTON CATTLE MARKET. — Dec. 15.

At market, 1400 Beeves, 160 Stores, 3000 Sheep and Lambs, 400 Swine.

PRICES—Market Beef—Extra, \$8.00@8.00; First quality, \$7.50@7.75; Second, \$6.75; Third, \$4.75@5. Working Oxen—\$8. @ \$10. Milch Cows—\$20@34; Common, \$16@19. Veal Calves—\$3.00@5.00. Yearlings—\$11@12. Two Years old—\$16@21. Three Years old—\$23@24. Hides—6¢@6½¢ per lb. Calf Skins—10¢@12¢ per lb. Tallow—7 @ 7½¢. Sheep and Lambs—\$1.25@1.50; extra, \$2.00@2.75. Pelts—\$1.00@1.25. Swine—Fat Hogs, none. Pigs, 5¢@6¢; retail, 5½¢@6½¢.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty cents a line, or \$2 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 3000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

The Rural Annual

AND

HORTICULTURAL DIRECTORY,
FOR 1860.

THE FIFTH VOLUME OF THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY is now published. It contains *One Hundred and Seven Illustrations*. It is unquestionably the handsomest work of the kind yet published in this country. It contains ONE HUNDRED and TWENTY PAGES, abounding in useful and interesting information.

NO FARMER OR FRUIT GROWER SHOULD BE WITHOUT A COPY.

Among the Contents will be found Articles

- ON PLANTING AND MANAGEMENT OF FRUIT TREES.
- ON INSECTS INJURIOUS AND BENEFICIAL TO THE FARMER AND FRUIT GROWER—75 Illustrations.
- ON DWARF PEARS, APPLES, PLUMS, AND CHERRIES—Six Illustrations.
- ON THE CULTIVATION OF THE AMERICAN BLACK RASPBERRY—One Illustration.
- ON THE MANAGEMENT AND VARIETIES OF PIGEONS—Fourteen Illustrations.
- ON PLANTING EVERGREENS—Two Illustrations.
- ON ORNAMENTAL DECIDUOUS TREES—Seven Illus.
- ON THE DISEASES OF ANIMALS—REMEDIES, ETC.

The Illustrations have been obtained at great expense, and are superior to anything of the kind yet published in this country.

Let every one interested in the Culture of the Soil, or in the improvement of Rural Taste, send for a copy.

ONLY TWENTY-FIVE CENTS!

Sent pre-paid, by mail, to any address, on the receipt of the money in three cent postage stamps.

Address **JOSEPH HARRIS, ROCHESTER, N. Y.**
Publisher of the *Genesee Farmer*.

The bound volumes for 1856, 1857, 1858, and 1859, can be had at 25 cents each, postage paid.

GRACE GREENWOOD'S

LITTLE PILGRIM!

A NEW VOLUME of this favorite monthly for children, will begin with the number for January, 1860, in which will be commenced a new and original story by that unrivalled writer for children,

MARY HOWITT,

CALLED

THE HOLY WELLS OF WYVEN;

Also, a new and true story by

GRACE GREENWOOD,

CALLED

A LITTLE HERO.

While from month to month it appears a varied array of choice stories, poems, child-anecdotes, puzzles, rebuses, charades, &c., by numerous and talented writers. The low price of this magazine brings it within the reach of all—the price being

Only 50 Cents a Year!

Specimen copies, containing club rates, a list of premiums, &c. will be sent free of charge, to all who request them.

Address, *postpaid always*,
LEANDER K. LIPPINCOTT,
Jan., 1860.—1t 132 South 3d Street, Philadelphia, Pa.

\$30 PER MONTH.—Wanted, the address of good Book Agents who will travel for *thirty dollars per month*, and expenses paid.
Nov., 1859.—3t 121 Nassan street, New York.

A COMPLETE GRIST MILL FOR \$20.

THE TOM THUMB GRIST MILL.

THIS mill has been well tested, and its qualities are fully established. It is now offered to the public as the latest improved and best cast iron mill in use. Its construction is entirely simple, requiring no skill in mechanism, or in the art of grinding to operate it.

It is furnished with an ingenious device for regulating the feed, which is placed within the throat of the mill. This invention supplies the place of the cumbersome and vexatious *rattle-stuff and shoe*, performing conveniently all the offices of both.

The axis of the mill is horizontal, and it is arranged to be run with a belt from a horse-power, or any ordinary motor.

It may be run with a two horse-power, up to a speed of two hundred and fifty revolutions per minute, or it may be operated with proportionally increased results, for every increment of power and speed, up to four or more horse-power, and four or six hundred revolutions per minute.

The mill is warranted to perform as stated. The following letter is from a responsible gentleman, who is using one of the mills:

MENDOTA, ILLINOIS, February 14th, 1859.

Messrs. HEDGES, FREE & Co.—Gents:—The little Tom Thumb Grist mill you sent me, is the best thing of the kind in use. We have ground corn, oats, barley, Hungarian grass-seed, and buckwheat. It works equally well with each. We ground six bushels per hour, and are confident that we can put eight bushels of dry corn through, and then make as good meal as can be made with burrs.

WARREN CLARK, Sec. of the Eagle Co.

Shipping weight, packed for transportation by rail or express,.....140 lbs.
Price,.....\$20

HEDGES, FREE & CO.

January, 1860—1t No. 6 Main street, Cincinnati, Ohio.

1860. AMERICAN STOCK JOURNAL. 1860.

THE great success which has attended the publication of the first volume of the AMERICAN STOCK JOURNAL, has induced the Proprietor to undertake several improvements for the volume commencing January, 1860, and he now offers it to the public with the assurance that its present high character will be fully sustained, and no effort will be spared to render the paper an indispensable necessity to all interested in the Breeding and Management of our Domestic Animals.

The VETERINARY DEPARTMENT will be under the editorial direction of Doct. GEO. H. DADD, the distinguished Veterinary Surgeon, and the late Editor and Proprietor of the *American Veterinary Journal*.

Each number of the paper contains 32 large octavo pages, and is handsomely illustrated. It is published monthly at 25 PARK ROW, New York. Terms, \$1 per year, *invariably in advance*, with a liberal discount to clubs.

Specimen copies gratis. Money may be sent at publisher's risk, in registered letters.

D. C. LINSLEY, Proprietor.

C. M. SAXTON, BARKER, & CO., AGENTS,
j 2t No. 25 Park Row, New York.

PORTEMER FILS, Nurseryman,

GENTILLY, near Paris, FRANCE,

BEGS to announce that he has on hand a large assortment of very fine ROSE TREES, also PEAR and QUINCE STOCKS, for sale at a moderate price. Apply to
j 3t PAUL BOSSANGE, 59 Liberty street, New York.

HUNGARIAN GRAPE SLIPS.—John Kolber's second importation of Hungarian Grape Slips, consisting of 30,000 hardy shoots, embracing a selection of *twenty-one of the choicest* varieties of table and wine grapes, suitable for out-door culture in every section of the United States, will be received in March next. We have also ordered, for gratuitous distribution, one case of the "*Makbano Szilva*," or free-stone Plum. Descriptive Catalogues will be forwarded by addressing the undersigned.
Jan'y—1t JOHN KOLBER, No. 592 Broadway, New York.

RURAL EMPIRE CLUB will furnish the most popular Agricultural, Literary, and News Periodicals, at low rates, with Premiums to each subscriber. *Positive, and no chance game.* Premiums consist of new and rare Seeds of Vegetables and Flowers, splendid Engravings—among which is that beautiful FIVE-DOLLAR PRINT, THE WASHINGTON FAMILY—and all the Dime Books which are flying through the mails like a whirlwind, from the Atlantic to the Pacific. Circulars sent on application to
1t I. W. BRIGGS, West Macedon, Wayne Co., N. Y.

SEEDS AT WHOLESALE!—Our new TRADE CATALOGUES OF GARDEN, FIELD, FLOWER, AND TREE SEEDS, for 1860, is now ready for mailing to all Dealers enclosing a postage stamp.

OUR STOCK OF SEEDS is the finest and most extensive ever offered in this country, and to parties requiring them in large quantities we offer unusual inducements.

J. M. THORBURN & CO.,

Jan., 1860.—1t 15 John Street, New York.

Seeds of Evergreen Trees and Shrubs.

WE are now in receipt of several leading varieties of TREE AND SHRUB SEEDS, in advance of our extensive assortment, of over 300 sorts, a Catalogue of which will be published on the first of February.

NORWAY SPRUCE SEED,.....	75 cts. per lb.
EUROPEAN SILVER FIR,.....	\$1 00 "
BLACK AUSTRIAN PINE,.....	3 00 "
PITCH PINE,.....	3 00 "
WEYMOUTH PINE,.....	3 00 "
EUROPEAN LARCH,.....	2 00 "
CHINESE ARBOR VITE,.....	2 50 "
AMERICAN DO., (clear seed),.....	6 00 "
HEMLOCK SPRUCE, (clear seed),.....	6 00 "
SAS SIDE PINE,.....	1 00 "
BALSAM FIR,.....	3 00 "
WHITE, AND BLACK BIRCH, each,.....	2 00 "
YELLOW AND WHITE ASH, ".....	1 00 "
CEDAR OF LEBANON CONES,.....	20 cts. each.
SCOTCH FIR,.....	1 50 per lb.
HONEY LOCUST FOR HEDGES,.....	75 "
YELLOW-TIMBER LOCUST,.....	75 "
BUCKTHORN SEED,.....	1 00 "

Also,

APPLE SEED,.....	40 cts. per qt.; \$3 per bush.
PEAR SEED, (imported),.....	\$2 50 per lb.
PEAR SEED, (American),.....	2 00 "
BLACK MAZZARD CHERRY PITTS,.....	50 cts. per qt.; \$10 per bush.
CONNECTICUT SEED LEAF TOBACCO, 3 50 per lb.	
EARLY SOVEREIGN POTATOES, (the earliest and best variety in cultivation),.....	\$.4 50 per barrel.

WHITE CLOVER, LUCERNE, ENGLISH RYE GRASS, BLUE GRASS, ORCHARD GRASS, and all and every variety of Seeds for the Farm, Plantation, and Garden.

J. M. THORBURN & CO.,

Jan., 1860.—1t 15 John Street, New York.

New Volume—New Story.

LIFE ILLUSTRATED IS AN ELEGANT

quarto of eight beautiful pages—a trifle larger than the *Illustrated London News*—a perfect model of excellence in size, shape, and sentiment, and is, altogether, one of the most sound and sensible of live papers. Men like it, women like it, boys like it, girls like it, the old folks like it, young folks like it, the children like it, and the rest of the folks *can't keep house without LIFE ILLUSTRATED.*

The new volume of LIFE ILLUSTRATED, commencing October 29, will contain a story from the pen of one of the best American writers, entitled

THE SCHOOLMASTER'S WOOING;

A TALE OF NEW ENGLAND,

which we have no hesitation in promising our readers will be one of the best stories ever written for newspaper columns; and entertaining as has been the widely-read and far-famed History of the *Minister's Wooing*, that of the Schoolmaster will be not less worthy of public attention.
Dec., 1859.—2t FOWLER AND WELLS, New York.

THORBURN'S DESCRIPTIVE ANNUAL CATALOGUE OF KITCHEN GARDEN, AND AGRICULTURAL SEEDS, FOR 1860, is now ready for mailing to applicants enclosing a postage stamp. It contains directions for cultivation, and other useful information for amateur cultivators. Send for it.
J. M. THORBURN & CO.,
15 John Street, New York.

HOME INSURANCE COMPANY.—Agency at Scottsville. Capital, \$1,000,000; surplus, \$400,000. The subscriber, having been appointed agent for the above reliable Insurance Company, will receive applications and issue policies on favorable terms. Farm buildings and dwellings insured at better rates than in Mutual Companies, without liability to assessment.
Scottsville, October 28, 1859. (dec2t*) J. DORR.

\$7000 WILL BUY A STOCK OR DAIRY FARM, containing 147 acres of land, well watered, good fences, a good house and three barns, good orchard; with 18 head of cattle, two horses, and some 40 tons of hay, with farming tools and dairy apparatus all complete. A rare chance. \$4,000 can run for eight years. Possession given immediately. For further particulars address [1t] P. V., Box 44, Perryburgh, N. Y.

FARM FOR SALE.—A farm of 166 acres, within half a mile of the village of Middleport, Niagara Co., N. Y., is offered for sale on reasonable terms. It is well supplied with barns, sheds, orchards, and all necessary improvements, and is well watered. About 20 acres are good wood land, the rest under cultivation. Inquire of or address
THOS. F. SMITH,
November, 1859.—3t* Middleport, N. Y.

WILL SELL OR EXCHANGE—50 or 160 acres improved prairie, 2½ miles from Amboy, Lee Co., Ill., worth \$20 per acre. If sold, a part of the purchase can remain on time. If exchanged, it must be for a cheap farm of 50 to 80 acres. Address
Jan'y—1t* W. H. GARDNER, Leland, La Salle Co., Ill.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

“A STITCH IN TIME SAVES NINE.”

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for lumping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mucilage, being vastly more adhesive.

“USEFUL IN EVERY HOUSE.”

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by **HENRY C. SPALDING & CO.,**
30 Platt Street, New York.

Address Post-Office, Box No. 3,600. Dec., 1859.—1y

CONTENTS OF THIS NUMBER.

Nature and Value of Peat and Muck..... 9
 Lucerne. Thomas Bates..... 12
 Five thousand-fold Increase..... 14
 English Bacon. Westphalian Hams..... 15
 Influence of Agricultural Papers..... 15
 Beans and Indian Corn for Milch Cows..... 15
 Smith's Web-Harrow. Plows for Cutting Underdrains..... 16
 Spirit of the Agricultural Press..... 17
 Rolling the Snow on Wheat Fields. Watering Cows..... 17
 How Corn Shrinks. Increasing the Weight of Wool..... 17
 Value of Cashmere Goats. Fawke's Steam Plow..... 17
 Texan Sheep Farms. Feeding Hens in Winter..... 17
 Scotch Butter. Kansas Wheat. Spaying Cows..... 17
 Plowing up old Pasture..... 18
 A rough and cloddy surface Soil for Wheat..... 18
 What Depth should Wheat be covered? A good Cattle Rack
 Parsnips. Manuring Wheat. Rearing Calves. Wheat Midge
 Seedling Potatoes. Proper Form and Shape of Cattle..... 19
 Bermuda Potatoes. Comparative Value of Fuel..... 20
 Hunting Horse "British Yeoman"..... 21
 Fowls—Their Importance, Management, &c..... 22
 How to attain desired Points of Excellence in Poultry..... 22
 Care for Ringbone. Foot Rot in Sheep..... 22
 Thoughts for the Thoughtful. Cranberry Culture..... 23
 Patent Progressed Pumpkin..... 24
 Design for a small Farm-House and Barn..... 25
 Importance to Farmers of a good Education..... 26
 Setting Fence Posts. A Fast People. To raise Cream..... 26
 To divest Milk and Butter of the Taste of Turnips..... 26

HORTICULTURAL DEPARTMENT.

Prospects of Fruit Culture..... 27
 The Bartlett Pear. Labels for Fruit Trees..... 29
 English Hawthorn Hedges..... 29
 Heliotropis and their Culture..... 30
 Smith's Spruce Fir..... 31
 The Weeping Mountain Elm. The Rebecca Grape..... 32
 Shade Trees, &c..... 33

LADIES' DEPARTMENT.

Hints to Housewives..... 33

EDITOR'S TABLE.

Notes on the Weather..... 34
 Items, Notices, &c..... 34, 35

REVIEW OF THE MARKETS.

General Remarks..... 36
 Market Reports..... 36, 37

ILLUSTRATIONS.

Portrait of Thomas Bates, Kirkleavington, Eng..... 13
 Smith's Web-Harrow..... 16
 M'Wan's Draining Plow..... 16
 Portrait of the Hunting Horse "British Yeoman"..... 21
 Progressed Pumpkin..... 24
 Design for a small Farm-House and Barn, with Ground Plan..... 25
 Bartlett Pear Tree..... 29
 Two figures illustrating manner of planting Hedges..... 30
 Heliotropium paniculatum..... 31
 Smith's Spruce Fir..... 31
 Weeping Mountain Elm..... 32

RUSSIA OR BASS MATS—Selected expressly for budding and tying. **GUNNY BAGS, TWINES, HAY ROPE, &c.**, suitable for Nurserymen and Farmers, for sale in lots to suit, by **D. W. MANWARING, Importer,** Sept., 1859.—1y* 245 Front Street, New York.

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.

By **JOSEPH HARRIS.**

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants. The address of papers can be changed at any time. Papers are sent to the British Provinces at the same rates as in the United States No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher. Address **JOSEPH HARRIS,** Publisher and Proprietor, Rochester, N. Y.

THE
GENESEE FARMER
FOR 1860.

BELOW will be found our Premium List for 1860. Our Specific Premiums are the same as last year, except that we do not offer specific premiums for larger lists than twenty-four, for the reason that any larger list than this will probably take a Cash Premium. The January Cash Premiums are larger and more numerous than ever before. Few persons compete for them, and very small lists will secure them. A few hours spent in canvassing is all that is necessary.

If there is no agent for the *Farmer* in your town, will not you, kind reader, act as agent for us in your neighborhood? The *Genesee Farmer* is *so* cheap that everyone interested in the cultivation of the soil will subscribe, if asked; and few do so unless they *are* asked. Show them a copy of the paper, and tell them its price, and they *can not help but take it*. Will not all our friends — will not you, sir, — make an effort to increase our list of subscribers for 1860? We will gladly send you show-bills, specimen copies, &c., if you will act as agent.

LIST OF PREMIUMS.

THE terms of the GENESEE FARMER are: Single Subscribers, Fifty Cents a year, in advance; Five Copies for Two Dollars; Eight Copies for Three Dollars; and any larger number at the same rate. All subscriptions to commence with the year.

In addition to this reduction of one-fourth, we offer the following List of Specific Premiums as an extra inducement for our friends to form Clubs.

SPECIFIC PREMIUMS.

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *Rural Annual* for 1860.
2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *Genesee Farmer* and one copy of the *Rural Annual*, pre-paid, by mail.
3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

JANUARY CASH PREMIUMS
For the Greatest Number of Subscribers.

Thousands of our readers delay sending in their subscriptions till several of the numbers of the new volume are out. In order to correct this practice as much as possible, we offer a liberal and very numerous list of Cash Premiums for the greatest number of subscribers sent in by the *fifteenth day of January*. The names of the successful competitors, together with the number of subscribers, will be announced in the February number, and the Premiums immediately paid.

1. TWENTY-FIVE DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 37½ cents each,) before the 15th day of January, 1860. (The order with the money must be *received*, not mailed, on or before the 15th of January.)
2. TWENTY DOLLARS to the person who shall send us the second highest number, as above.
3. NINETEEN DOLLARS to the person who shall send us the third highest number, as above.
4. EIGHTEEN DOLLARS to the person who shall send us the fourth highest list, as above.
5. SEVENTEEN DOLLARS to the person who shall send us the fifth highest list, as above.
6. SIXTEEN DOLLARS to the person who shall send us the sixth highest list, as above.

7. FIFTEEN DOLLARS to the person who shall send us the seventh highest list, as above.
8. FOURTEEN DOLLARS to the person who shall send us the eighth highest list, as above.
9. THIRTEEN DOLLARS to the person who shall send us the ninth highest list, as above.
10. TWELVE DOLLARS to the person who shall send us the tenth highest list, as above.
11. ELEVEN DOLLARS to the person who shall send us the eleventh highest list, as above.
12. TEN DOLLARS to the person who shall send us the twelfth highest list, as above.
13. NINE DOLLARS to the person who shall send us the thirteenth highest list, as above.
14. EIGHT DOLLARS to the person who shall send us the fourteenth highest list, as above.
15. SEVEN DOLLARS to the person who shall send us the fifteenth highest list, as above.
16. SIX DOLLARS to the person who shall send us the sixteenth highest list, as above.
17. FIVE DOLLARS to the person who shall send us the seventeenth highest list, as above.
18. FOUR DOLLARS to the person who shall send us the eighteenth highest list, as above.
19. THREE DOLLARS to the person who shall send us the nineteenth highest list, as above.
20. TWO DOLLARS to the person who shall send us the twentieth highest list, as above.
21. ONE DOLLAR to the person who shall send us the twenty-first highest list, as above.

There is not a town in the United States where any person, by showing his neighbors a copy of the paper and asking them to subscribe, might not take some of the largest of the above Premiums.

Those who do not take any of the Cash Premiums, will be sure of the Specific Premiums, so that we have no blanks.

CLUBS are not required to be at one Post Office, or sent to one address. We send wherever the members of the club may desire. Names can be added to a club at any time.

A TWENTY-FIVE CENT PREMIUM TO EACH SUBSCRIBER!

Rural Annual and *Genesee Farmer* in Clubs.

**AS A STILL GREATER INDUCEMENT
TO FORM CLUBS,**

We offer the GENESEE FARMER for one year, and our beautiful twenty-five cent book, the RURAL ANNUAL and HORTICULTURAL DIRECTORY for 1860, in clubs of eight or upwards, at Fifty Cent the two. In other words, for FOUR DOLLARS we will send *eight copies* of the FARMER for one year and eight copies of the RURAL ANNUAL, together with a RURAL ANNUAL for the person who gets up the Club. For EIGHT DOLLARS we will send *sixteen copies* of the FARMER and *sixteen copies* of the RURAL ANNUAL and one extra copy of *each* for the person who gets up the club.

Any person sending us THREE DOLLARS for a club of eight of the GENESEE FARMER, shall receive one copy of the RURAL ANNUAL for his trouble.

We send the club to one address, or write the name of each subscriber on his paper, as requested.

POSTAGE.—The postage on the FARMER sent to any place in the State of New York, paid quarterly in advance, is three cents a year; to any other place in the United States, six cents a year. We pay the American postage on all papers sent to the Canada or any of the other British Provinces. In all cases we pay it postage on the RURAL ANNUAL.

Our Agents, and Competitors for the above Premiums, will remember that our terms are always IN ADVANCE.

Subscribers' Money may be sent by mail at *my risk* and you need not "register" the letters.

Address **JOSEPH HARRIS,**

PUBLISHER AND PROPRIETOR.

December 1, 1859.

ROCHESTER, N. Y.



BONES AS A FERTILIZER.

WE have received several inquiries in regard to the value of bones as a fertilizer, and the best method of preparing and applying them.

The value of bones depends almost wholly on the phosphate of lime and gelatine which they contain. If we burn bones the gelatine is driven off, while the phosphate of lime remains as ashes. Dry bones contain, in one hundred lbs., about fifty lbs. of phosphate of lime, and gelatine equal to about five pounds of ammonia. The commercial value of the former is about one cent per lb.; of the latter, twelve cents per lb. This would make one hundred lbs. of bones worth, \$1.10—the phosphate being worth fifty cents, and the gelatine sixty cents. In burning, therefore, we destroy more than half the value of the bones.

The great question is, how can bones be applied so that the phosphate and the gelatine shall be both retained. Plow them in whole, is the first plan that suggests itself. This certainly retains in the soil all the virtue there is in the bones; but they are so slow to decompose and give up their fertilizing matter, that little or no immediate benefit is derived from their application. Place them in moist unleached wood ashes, or in horse dung, or other fermenting material, and they will decompose and fall to pieces, is another way recommended. This plan has had many able advocates. It has doubtless in many cases proved effectual. There is, however, this objection to it: a considerable portion of the ammonia formed during the decomposition of the bones escapes; and if, in order to retain the ammonia, we surround the heap with peat, etc., fermentation proceeds so tardily, from lack of air, that the object is but half accomplished. Better, however, treat bones in this way, than allow them to lie bleaching in the summer's sun, an eyesore to every passer-by.

Phosphate of lime, as found in bones, is comparatively insoluble in water; and, as plants can take up their food only in solution, it is very desirable

that this insoluble phosphate should be converted into a soluble phosphate. This can be done simply by the addition of the proper quantity of sulphuric acid and water to the insoluble phosphate of the bones. The value of this change may be understood by the consideration of the fact that, while the insoluble phosphate sells in London for less than one cent per lb., the soluble phosphate sells readily, as a manure for turnips, at eight cents per lb.

Knowing the increased value of the soluble phosphate, and the great difficulty of reducing bones to a powder, many scientific men have recommended farmers to dissolve whole bones in sulphuric acid, and thus "kill two birds with one stone." We have experimented not a little on this subject, and have come to the conclusion that it is *practically impossible* to make a good superphosphate of lime from whole bones. We have used twice the quantity of acid necessary for the conversion of the phosphate into superphosphate, and allowed it to act on the bones for several months, yet only a very small proportion of the bones was decomposed. Equally unsuccessful, too, have we been in dissolving coarsely crushed bones. The acid, it is true, decomposed the outside portions of the bones, but left by far the greater part of the bones untouched. We have never yet succeeded in making a good superphosphate of lime without grinding the bones quite fine before mixing them with the acid.

We conclude, therefore, that while bones may be disintegrated by moist, unleached wood-ashes, or by fermentation, the only method of obtaining *all* their fertilizing properties is by grinding. We should be sorry to discountenance experiments having for their object the decomposition of whole bones; but at the same time we could wish that some of the intelligence, ingenuity and skill, which have hitherto been unsuccessfully employed in this matter, were turned to devise a cheap and efficacious bone-mill, and that one was erected in every town of the country.

Having the bone dust, how should it be used? Should it be converted into superphosphate, or sown on the land as it is? We have thought much on this subject, and are inclined to think that, except in the neighborhood of large cities, where sulphuric acid can be obtained at a reasonable rate, say two cents per lb., it will generally be cheapest in the end to apply the bone dust without mixture with acid. For wheat, we are fully satisfied it will not pay to decompose the bones with acid; and on grass lands, from the experiments we have made on the subject, we conclude it is of doubtful economy. For turnips and other root crops, except potatoes, no manure has such a beneficial effect as good home-made superphosphate of lime drilled in with the seed. If sown broadcast its effects are not so marked.

With fine bone dust, no farmer need have any trouble in making superphosphate. We have succeeded best as follows: Take a large tub or end of a cask, place in it the quantity of bone dust that can be best worked at a time, say sixty lbs.; add water sufficient to wet all the bone dust, say forty lbs. and be careful that all the dust is moistened. Then pour on sulphuric acid equal to full one-third the weight of the bone dust, say twenty to twenty-five lbs. (sp. gr. 1.70.) The mass should be friskily stirred as soon as the acid is added. When it is well mixed, throw the semi-fluid mass in a heap on a wooden floor, and repeat the process till the whole is done. The larger the heap the better, as the heat generated in the process materially assists the acid in decomposing the bones.

A tolerably good superphosphate may also be made with less labor, by placing all the bone dust at once in a heap on a wooden floor, adding the proper quantity of water, and turning over the heap until all the dust is moistened, and then apply the sulphuric acid in small quantities, repeatedly shoveling over the heap, and adding the acid until the proper proportion is used. The longer the superphosphate is allowed to remain in the heap, the better.

Superphosphate so made will be too moist for transportation, and cannot be sown to advantage without admixture to some absorbent substance. In England, burnt clay, refuse charcoal dust, coal ashes, dried peat, or even sawdust, are used for this purpose. Whatever is used, be very careful that it does not contain an alkali, or alkaline earth, as this would materially injure the mixture.—Unleached wood ashes and lime, must on no account be employed for this purpose. They would neutralize the acid, and reconvert the

soluble superphosphate into the insoluble phosphate, and thus undo what has been done at considerable expense.

LARGE YIELD FOR TWO ACRES

In a recent conversation with the Hon. A. B. DICKINSON, of Hornby, Steuben Co., N. Y., he stated that he obtained one hundred and forty-four bushels of barley the past season from two acres of land, or *seventy-two bushels per acre*.

The land had been in grass for some years— which was *irrigated* and produced a heavy crop of hay each year. It was broken up in the fall, and sown to oats in the spring without being plowed again—it was simply harrowed two or three times lengthwise of the furrows. The crop of oats was *eighty bushels per acre*. After the oats were off, the land was plowed in the fall, and planted to potatoes in the spring. These yielded four hundred bushels per acre. The land was again plowed in the fall, and sown to barley the next spring without again plowing. This produced, as before stated, seventy-two bushels per acre.

These are all great crops. They are doubtless attributable in a good degree to the *irrigation of the grass land*. The sod or turf which was plowed in was very heavy, and its decay in the ground furnished a large amount of organic matter for the use of the subsequent crops.

We write this from memory. If we have made any mistakes, Mr. DICKINSON, we hope, will correct them. And we would also here say, that we should feel obliged if Mr. D. would write us a short article on irrigation. He has had much experience in this important, but too much neglected, branch of good farming, and we are sure an article from him on this subject would be read with interest.

SCARCITY OF FODDER.—A. S. GRAHAM, of Chautauque Co., N. Y., writes us, that, owing to the June frost last year, which destroyed more than half the crop of grass, farmers in that county are drawing corn fodder twenty-five miles to feed their stock, while some are driving off their cows to be wintered elsewhere. The young stock has been mostly sold, to go East, and also the working oxen. But they have held on to the cows. Thousands of bushels of corn were sown for fodder, which has proved a great help.

COTTON IN ILLINOIS.—The *Prairie Farmer* states that cotton has been successfully raised last season in Sanganmon Co., Ill. The quantity grown was small, but it will encourage further trials.

POTATOES PLANTED WITH CORN.

SEVERAL of our correspondents, in the last and preceding volumes of the *Farmer*, have recommended the practice of planting potatoes between the rows of Indian corn. The potatoes might be planted between each hill of corn in one direction of the rows, and still allow the use of the horse-hoe alongside; but of course it could not be used in both ways, which is often very desirable, as it saves much hand-hoeing.

It would seem to us, too, that with a good crop of corn, the land would be so shaded that potatoes would not thrive very well; or that, if they did, they would rob the corn of its needed food and moisture, the same as grass or weeds.

If, however, good crops of corn and potatoes can be obtained, as is asserted—and which, if the ground is rich enough and properly cultivated, is not improbable—the practice is one which should be generally known. We need more light on the subject; and the object of these remarks is to elicit the opinion of our readers. In the *Albany Cultivator* for 1839, S. W. NEWTON, of Brooklyn, N. Y., gave the results of an experiment the preceding year. His practice was different from the one we have alluded to above. He says:

"I planted fifty-four perches of ground, after being once plowed perfectly and well dragged, in the following manner, viz: three rows of potatoes and three rows of corn, and thus alternately: The corn planted in rows, three feet and a half by two feet, three stalks to the hill; the potatoes, in drills from thirteen to fifteen inches asunder—planting both on the flat surface. I planted on the last day of May, and harvested on the 15th of September, and obtained twenty-four bushels of ears of corn, three bushels of pumpkins, and fifty-five bushels of potatoes. The season was not altogether congenial to the potato with us last summer, being too dry; of course the seed was, by hoeing, raised too high to insure a full crop; and had the ground been lightly trowled for the potatoes, and ridged for the corn, I think the produce of each would have been considerably increased—that of the potato in particular. The produce of an acre would have been seventy-one bushels of corn, and 163 of potatoes. This is at the rate of thirty-five and a half bushels of shelled corn to the acre, according to the usual mode of planting; and since forty bushels in this country is counted a tolerable crop, the potatoes might be counted almost a clear gain to reward for the experiment."

GUANO was first introduced into England in 1841,—twenty casks being brought to Liverpool by Mr. MYERS. Subsequently its use became so general that, for the ten years ending 1857, the English farmers expended more than *one hundred millions of dollars* in its purchase.

CALIFORNIA POTATOES.

THE Rev'd H. H. THOMPSON, of Cochranton, Pa., sends us an account of a very productive variety of potato, grown last year in that neighborhood. He says:

"I obtained last spring, from a friend, three potatoes of the California variety. Having cut them in pieces containing one eye each (seventy in number), I planted them on the 23d of May, in a light sandy soil, which had previously been in a high state of cultivation, but had lain out for two years. I used no manure; I planted one eye in each hill, three feet apart; horse-hoed three times; hand-hoed twice. The result was eight bushels of large-sized potatoes—many of them weighing over three lbs., and some of them over four lbs. I do not regard them a good variety for table use, being about equal to the "Pale Reds;" but for stock, I think them unsurpassed by any. They are a yellow, rich, succulent potato, and their great productiveness makes it an object for farmers to cultivate them for their stock. Several of my neighbors have cultivated them the last season, and in every instance they proved very productive."

WHEAT FROM THE SOUTH.—In answer to the question, "How can we best increase the early flowering and ripening of winter wheat; and should the seed come from a more southern or a more northern latitude?" a correspondent says: "I think the seed should come from a more northern latitude; for, as we go south, gradually, seed-time becomes later, and as we go north, seed-time becomes earlier. Therefore, if we should bring wheat from a more northern to a southern latitude, we should be likely to get wheat that would be more thrifty and ripen earlier."

We can not see the force of this argument. It is true that "seed-time" is later as we go south, but the *harvest* is earlier; and, as our object is not to get wheat that we can *sow* earlier, but rather that which *ripens* earlier, it would seem that we should get our seed-wheat from the south. But we do not want *speculations* on this subject. Let us have *facts*.

CUT AND CRUSHED FOOD FOR HORSES.—The horses in Flanders are kept in the stable winter and summer. Their straw and hay is always cut, and their grain always given to them in the form of meal, and generally *mixed with their drinks*. Their daily food in winter is 15 lbs. hay; 10 lbs. straw, and 8 lbs. oats. In summer, clover is substituted for hay. The horses are in the finest condition.

THOUSANDS of lambs are lost for the want of one night's shelter. Thousands of sheep are destroyed by constant shelter.

FARMER'S CLUBS.

The importance of a well organized Farmer's Club can not be over-estimated. Such a club, when kept up with spirit, is a most admirable means of imparting practical information and eliciting important facts. Is it not an agreeable and profitable way of spending the long evenings of our cold winter days, for a number of farmers to assemble at some appointed place, and spend the passing hours in the discussion of subjects connected with the advancement of their mutual interests? Is it not desirable that many of the theories brought forward by the agricultural journals of the day, should be discussed, and ventilated, by the very men for whose benefit they were professedly broached?

Our attention has been called to this subject by the perusal of a little work recently published by D. AYER, of Little Falls, N. Y., entitled "Essays and Discussions on Agriculture, before the Farmers' Club of Little Falls." A few extracts will give some idea of the range of subjects discussed:

PEAS AND POTATOES TOGETHER.—Peas were sown with the potatoes at the time of planting, and they entirely escaped the rot. The yield of both peas and potatoes was good.

WINTERING CALVES.—Particular care should be taken of calves, during the early part of winter. Other food beside hay should be given,—small quantities of oats or roots will be most serviceable.

YELLOW BIRDS VS. THE MIDGE.—A farmer seeing this bird a good deal in his wheat, killed one, and upon opening its crop found two hundred weevils and but four grains of wheat,—and in these four grains the weevil had burrowed.

SALT FOR MILCH COWS.—Without the use of salt, the milk becomes scanty and imperfect. The greatest necessity for its use is in the spring, when the cows are first turned out to grass. A few experiments in May and June showed that going without salt five days shrunk the milk from one to two per cent. in quantity, and from five to seven per cent. in quality. Later in the season, less difference was observable.

FOOD FOR HORSES.—Variety is an essential. Oats are not the only food that will fit a horse for labor or the road. Roots are oftentimes much superior. Of these, carrots are the best, and keep the horse sleek and in good health. Heavy horses, while fed on cut corn-stalks, together with a little corn and cob meal, will not show any symptoms of this disease.

THE IMPORTANCE OF CLEAN MILKING.—Careful experiments showed that the strippings, or the last half pint of milk drawn from the cow, contain more cream than twelve times the same quantity taken from the first part of the same milking. In some of the experiments the proportion was considerably greater.—[The experiments alluded to were made by Dr. ANDERSON, we believe, half a century ago, but are none the worse for that.—Eds.]

BOARD FENCES.—The usual width of boards, for a panel fence, is about seven inches for the two upper boards, and eight or ten inches for the lower ones, making 44 feet of boards per rod. By having the upper and lower boards six inches wide, and two four inch boards between them, and leaving a space of six or seven inches between the boards, 27 feet of lumber per rod will make a fence high and strong enough to keep out farm stock.

SHEEP IN WINTER.—The first great want of sheep in winter is protection from the inclemency of the weather. Shelter is a prime necessity to them. Confinement is, however, not advisable; but the opportunity of having a refuge to go to when it is necessary, ought to be given. Feed regularly, and give them free access to water.

HEAVY OATS.—That a bushel of heavy oats are worth more than a bushel of light oats, all admit; and it is equally certain, though perhaps not quite so apparent, that, *weight for weight*, the heavy oats are the most valuable. It has been found by experiment, that a bushel of oats weighing forty-two lbs. yields twenty-five pounds of meal; one weighing forty lbs., twenty-three and one-fourth lbs.; thirty-eight lbs., twenty-one and three-fourths lbs.; thirty-four lbs., eighteen and three-fourths lbs.; and a bushel weighing only thirty lbs., yielded only sixteen lbs. of meal. In other words, one hundred lbs. of oats which will weigh forty-two lbs. per bushel, will give sixty lbs. of oat meal; while one hundred lbs. of oats weighing only thirty lbs. per bushel, afford only fifty-three lbs. of meal. It will be seen that two bushels of the heavy oats are worth as much as three bushels of the light oats.

PLASTER.—The late JESSE BUEL, in the *Cultivator* for 1837, said: "It is generally conceded, that upon porous and dry soils, plaster does benefit clover, corn, potatoes, peas, and generally all plants having broad and succulent leaves. But it is a matter of doubt, at least in our minds, whether its application is directly beneficial to timothy, wheat, rye, or barley." Subsequent experience, we think, confirms these opinions.

LARGE YIELD OF LARGE PUMPKINS.—A correspondent of ours says: "Mr. W. P. YENSEL, of Stowenburg, Pa., raised seven pumpkins from two seeds. They weighed, respectively, 140, 130½, 75, 74½, 61½, 58, 58 lbs., making an aggregate of 597½ lbs. of pumpkins from two vines. Can this be beat?"

FEEDING TURNIPS TO COWS.—If this is done morning and evening, immediately *after* milking, no taste of turnips will be discernable in the butter.—P., C. W.

SPIRIT OF THE AGRICULTURAL PRESS.

TESTIMONIAL TO JOHN JOHNSTON, OF GENEVA.—

We see by the *New York Tribune*, that a number of gentlemen interested in the improvement of agriculture, have clubbed together and presented a massive silver pitcher and two goblets to the above named gentleman. On one shield of the pitcher is represented a harvest field, as it appears in our day, on another a mowing machine is seen at work, and the third bears the following inscription:

"Presented to JOHN JOHNSTON, in recognition of his Services to the Agriculture of New York, by his fellow citizens." [Here follow the names of the gentlemen.]

The goblets bear representations of men laying drain tiles, tile machines, and small draining tools

LARGE FARMS.—The *Country Gentleman* justly remarks: "The passion for more land is one which works incalculable injury to American agriculture. It crowds out of farming many who would otherwise engage in it—many who, were small farms more readily attainable, would do good service in the culture of the soil, and in the elevation of the character of our farming population. Let us be less covetous of surface, and not forget that we own the subsoil, and endeavor to make what we have attain a greater productiveness; and let us ask for better crops, finer animals, more serviceable implements, rather than 'one field more.'"

OSAGE ORANGE HEDGES.—A correspondent of the *Prairie Farmer*, in a sensible article on this subject, attributes the repeated failures with this plant to the want of care in cultivation, rather than to any want of adaptability of the plant to the climate and soil of the West. It requires to be planted in soil made mellow and well manured to the depth of at least two feet, and to be as carefully plowed and hoed through the summer as a row of potatoes, for two or three years, until the hedge is ready to turn out, when the ground should be well seeded with timothy. The plants are to be pruned three times a year: in spring, close to the ground; in June, four or five inches above the ground; in September, six or eight inches above the last cutting, and so on every year until the hedge is high enough and strong enough to turn cattle, after which it should be kept well trimmed.

LARGE FLEECES OF WOOL.—A California paper gives an account of two fleeces shown at the State Fair at Sacramento, Cal. The fleece of the buck Grizzly, owned by FLINT, BIXBY & Co., weighed 42½ lbs. It was of superior style and fineness, and was esteemed the best fleece ever shown. The fleece of the buck Samson, belonging to JOHN SEARL, was also shown. It weighed 32½ lbs.

SINGED BACON.—The *Chicago Tribune* says Mr. THOMAS NASH, of that city, has adopted the Hampshire plan of singeing his hogs after slaughtering, instead of the usual mode of scalding them. After killing, the carcasses are covered with straw, which is then burned upon them. They are then turned, and the process repeated on the other side, leaving the carcasses quite blackened. This dark coat is scaled off with a scraper, and the hog is found to be perfectly cleaned of bristles. It is then dressed, cut in half, head and legs cut off, blade and backbone cut out, the whole neatly trimmed with a knife, and the sides then laid in tiers, skin side downward, the meat surface plentifully strewn with salt to pickle it, and in about two weeks the process is completed, and the *singed bacon* ready for shipment in boxes to London, where it is preferred to any other.

FERTILITY OF SUBSOILS.—A correspondent of the *Country Gentleman* relates an instance in his own experience, where a portion of a rich alluvial meadow had been covered to a depth of from six to eighteen inches with a deposit of sand, washed down from an adjoining bluff. This portion of the field was considered ruined; yet he planted the whole with corn. The field averaged sixty-two bushels per acre, and that portion covered with sand yielded one-fifth more corn than what grew on the rich alluvial soil of the rest of the meadow. This same spot continued to produce equal to the best of the intervale for many years afterward.

FARMING IN MISSOURI.—A correspondent of the *Country Gentleman*, writing from Buchanan Co., Missouri, says: "I presume there is no section of the country where the subject of introducing good stock has been more neglected than in this, and where the stock is uniformly so poor." Hemp and corn seem to be the staple crops of that country, and the former has generally proved profitable until within the last year or two, when the market has not been so good. The wheat crop, he says, is a very uncertain one, under the system of cultivation pursued there.

SALTED WATER FOR SHEEP.—The *New York Tribune* gives the following experiment: 100 sheep were fed regularly 187 lbs. hay and 175 lbs. straw per day. This was replaced by 110 lbs. of hay and the same of cut straw, the sheep being watered over night with 33 gallons of water, in which 1½ lbs. of sea salt had been dissolved. Notwithstanding this reduction in the amount of their food, the sheep remained in as good condition as they were before.

NOTES ON THE DECEMBER AND JANUARY NUMBERS OF THE GENESEE FARMER.

FATTENING STOCK ON POTATOES.—Will the refuse of potatoes fatten stock, after having their starch removed by distillation, or any other process? There is proof enough that *one object* of carbonaceous substances (oil or fat, starch, gum and sugar,) in our diet, is the supply of fat. "The Esquimaux fattens on his diet of blubber and train-oil; the slaves on the sugar plantations grow fat in the boiling season, when they live heartily on sugar; the Chinese grow fat on an exclusively rice diet,—and rice is chiefly starch." It is said that an able-bodied, laboring Irishman, whose diet consists wholly of potatoes, requires fourteen lbs. each day, ten and a half lbs. of which is water, leaving but three and a half lbs. of solid matter, including the starch. Remove the starch, and is the balance left worth more for feeding and fattening purposes for being destitute of starch? The idea is not only "ridiculous," but supremely so.

COTSWOLD SHEEP.—I do not know but "sheep consume food *in proportion to their live weight.*" But I do know that the live weight of a man has nothing to do with the quantity of food he consumes. I have had in my employ many a lean, Cassius-looking chap, weighing from five to six score pounds, that would stow away twice as much food, for weeks together, as a plump, juicy one would, weighing ten score pounds, or over.

ADVANTAGES OF PULVERIZING THE SOIL.—This is a subject that is every year becoming better understood among farmers. But as you have set forth all the advantages accruing from thorough working of the soil, nothing further need be said upon the question, just now; but it is one that will bear "line upon line."

FLINT well says: "Keep your cows in good condition, should be the motto of every farmer, posted up over the barn-door, and over the stalls, and over the milk-room." Would it not be a good plan to have these placards "struck off" in large letters, for the farmers to post up as above suggested?

TYING UP CATTLE, AND SOILING COWS.—Two paragraphs in close juxtaposition. TAMWORTH and Mr. QUINCY tell quite different stories about keeping cattle in the barn.

LIME AS A MANURE.—A farmer in Chester Co., Penn., says he "finds lime the cheapest manure he can purchase. He pays ten cents a bushel for it and draws it thirteen miles." How long can the fertility of a farm be kept up on lime alone?

SHEEP KILLED AND WOUNDED BY DOGS, IN OHIO. Two lines in the *Farmer* tell us that the number of sheep killed and wounded by dogs, in Ohio, in 1858, amounted to 96,977. Don't the farmers out there know the virtues of strychnine, in lessening the number of dogs?

PLASTER FOR TIMOTHY.—Plaster is generally considered more useful for broad-leaved plants, like clover, peas, beans, etc., than for the narrow-leaved ones, like timothy. If Mr. SHAW will apply at the rate of two bushels of plaster per acre, to his high and dry land, now stocked with timothy, it may increase the yield. But if it does not, it will soon, on his soil, bring in the clover, amply repaying the cost of the plaster and the sowing of it.

WHEAT MIDGE.—This scourge of the wheat-growers usually *wriggles* itself out of the wheat before it is harvested; seeks shelter near the roots of the stalk, and, burying itself to a slight depth beneath the surface of the soil, lies dormant until spring. After undergoing certain changes in the latter part of June and into July (depending somewhat upon the season and latitude), it assumes the winged state. Probably no amount of freezing will destroy their vitality. Provision has been made to perpetuate the midge, as well as thousands of other insects that survive the extreme cold of our winters, while in the chrysalis, or pupa state.

NATURE AND VALUE OF PEAT AND MUCK.—But little need be said to the readers of the *Farmer* upon the valuable contribution on peat and muck, by Prof. JOHNSON. It speaks for itself, and in language, too, that we common farmers can understand; and to be benefitted by its teachings, we must go into this muck and manure business with a right good will. But, as every farmer has not muck upon his premises, the decaying leaves and leaf-mold from his wood-lot, or saw dust, or even the spent tan from the tannery, will answer as substitutes. Dry saw-dust and tan both make capital bedding for cattle and horses, and ultimately good manure.

BEANS AND INDIAN CORN FOR MILCH COWS.—A mixture of corn and bean-meal for milch cows, when fed together as practiced by R. H. BROWN, is unquestionably better than either fed singly or alone. There are chemical and physiological reasons for this. King Philip corn, analyzed by Dr. JACKSON, contained four per cent. of oil, and sixty-three per cent. of starch, and only about seven per cent. of gluten, casein and albumen. The starch and oil, in animal economy, are used for the purposes of respiration, keeping up the temperature of the body, and for the production of fat; the gluten, etc., containing nitrogen, go to make muscle, milk, etc. The carbonaceous—the heat and fat producing elements of Indian corn—greatly exceeds those of the flesh and milk forming elements; while in beans, the order is completely reversed; that is, a given weight of beans contains three times the quantity of strength-giving, muscle-forming, and milk-producing elements, that the same weight of corn does; but the bean lacks in "available carbonaceous matter," so that, when fed alone, there is a loss of the nitrogenous portion of it. Fed as practiced by Mr. BROWN, we have a much more perfect or equalized food; that which will produce animal heat, fat and cream—milk, rich in both cream, casein, and in inorganic matters. With three quarts daily, each, of corn and bean-meal, and good hay, plenty of pure water, warm hovels, well littered, and a free use of the currycomb and brush, the farmer has a *right* to expect a good flow of milk, and No. 1 calves.

ROLLING SNOW ON WHEAT FIELDS.—The correspondent of the *Toronto Globe*, who advocates this practice, under certain conditions, is right. If the snow comes, as is sometimes the case, before the ground freezes, and succeeding shows follow so as to prevent the after-freezing of the ground, winter wheat and rye, under such a condition, are liable to winter-kill, or rather, to *smother*. The plants under the snow, when the ground is unfrozen, are in a growing condition, and use up all the oxygen

within their reach. The snow prevents the admission of any more, and the plants become diseased, and soon after the snow melts off in the spring they die; the leaves turning white, resembling narrow white tape. One of the essential conditions of the life of all organized beings, whether vegetable or animal, is a supply of oxygen. But when the ground is deeply frozen before the show comes, then the plants cease to grow, and require neither oxygen, nor any other element. If the ground is not frozen when the first six, eight, or twelve inches of snow comes, the passage of a heavy roller over the snow will so compress it that the ground will freeze by the first cold weather, almost as readily as if there was no snow on the field; and the plants *hybernate*, as it were, and will come out bright and healthy as the snow disappears. I think, Messrs. EDITORS, you have hundreds of farmer readers who can corroborate the above views.

KANSAS WHEAT.—The editor of the *Rochester Express*, saw a sample of wheat in Kansas weighing sixty-five lbs. per bushel, and yielding thirty bushels to the acre. Last week, I received a letter from Col. CATE, of Northfield, N. H., saying, that, from one bushel sowing of bald winter wheat, he raised twenty-four bushels, weighing sixty-five and a half lbs. per bushel. This is at the rate of over thirty-six bushels per acre, as we generally sow from one and a half to two bushels of seed per acre. From the above, it will be seen that down here in the region of ice and granite, we rather out-do Kansas in the wheat line. LEVI BARTLETT.

Warner, N. H.

HAMPSHIRE BACON.

EDS. GENESEE FARMER:—The following is a method of preparing and curing bacon, with which I have been practically familiar, in Hampshire, England.

Hogs of the most desirable size for bacon, range from one hundred and sixty to two hundred and twenty lbs. The hair is singed off.* The gambrel is not used for suspending the carcass, unless the hams are to be taken out, which is seldom the case; but this is done by means of a double hook inserted in the openings of the gammon or pelvic bones. This method secures flitches of a better shape than when the legs are strained back. The carcasses are cut out on the following day. After removing the head, two incisions are made down the back, from the neck to the tail, as deep as practicable, one on each side of the center, and about an inch from it. The carcass is turned over, and the ribs and other bones cut through on either side of the spine, and

* This is done by burning with wheat straw. The hog is laid on the belly, with the legs stretched out, and the head from the wind; or on the side, in which case a bunch of straw is placed between the legs. Straw is then shaken lightly over the carcass, say from nine to twelve inches in thickness. The fire is applied at the head, so that the flame is blown from the straw, in order that it may burn more slowly. The head, too, is not so liable to scorch as the gammons. After the straw is all burnt, the ashes are swept off, and a fresh quantity of straw is burned on such parts as are not sufficiently singed. Care must be taken to avoid scorching. After this the carcass is turned, and the process repeated on the other side.

After the hair is all singed off, the hog is cleaned by washing and scraping with a knife.

close to it. The flesh is cut, so as to meet the incisions previously made. The part thus removed is called the chine. This, however, is not always taken out, but the back-bone should be. For this purpose, but one incision is made down the back, and that one in the center. The bones on the inside are cut in the same manner as stated above, and the flesh is cut close to the bone, on either side, through to the one incision. The spare-rib, including the first four or five ribs, with a slice from the shoulder, is taken off. A slice from the gammon, including the first bone to the joint, the tender-loin, and about two inches, from the ends next to the spine, of the remaining ribs, with a part of the lean meat attached, are taken off. A strip, two or three inches wide, along the lower side of the flitch, and quite through it, is cut away. The legs are cut off; the blade-bone is taken out, and the ribs sawed nearly through the middle, and beat back so as to make the flitch as flat and even as possible. It is then ready for curing.

A small quantity of salt is sprinkled over it, and it is allowed to remain till the following day, when the saltpetre, finely pounded, is applied at the rate of half a lb. to the flitches of a hog weighing two hundred lbs. A liberal quantity of salt is sprinkled over the surface and the parts where the legs were taken off, and the flitches are stacked up, twenty or more in a pile, to any convenient height, and any number of piles. In two days from this time it is shifted. The top flitch, after thoroughly rubbing the remaining salt into every part, is put at the bottom in another place, and a fresh quantity of salt applied. The next flitch is removed, being treated in the same manner—and so on through the pile, the one previously at the bottom being now at the top. The next pile is shifted to the place occupied by the first, and managed in the same way, and so on for any quantity. This process should be repeated once in three days for ten days or two weeks from the first sprinkling of salt, according to the size of the bacon. A fresh supply of salt may not be needed every time; but the rubbing and shifting are necessary. The remaining salt should now be swept clean off, and the bacon removed to the smoke-house. This should be so constructed as to allow the smoke to pass off freely, as the confined, smothering process of smoking gives the meat an unpleasant flavor. From seven to ten days' smoking is sufficient.

The points requiring attention, in order to success, are thorough salting in as short a time as possible, and smoking in a well-ventilated house. In this country, it is not easy to preserve it in good condition, on account of the fly, and its liability to become yellow and rancid. The difficulty may, in some measure, be overcome, by packing it, when quite dry, in dry oats or straw, and keeping it in a cool and dry place. The flesh of some hogs, however, is of such a strong flavor, that no process of curing, nor care in preserving, will result in the production of good bacon. JOHN BRADFIELD.

Rochester, Jan. 1860.

CURE FOR HEAVES IN HORSES.—Common tar, mixed with a tablespoonful of ginger, made into a ball, with a little shorts. Given daily. The very worst cases have been cured by this simple remedy, and the cure is of a permanent character.—F., Richmond Hill, C. W.

SELECTING CALVES FOR REARING.

Use judgment in selecting such heifer calves as are to be reared. Select only those whose mothers are good milkers, and whose sires have come from good milking stock; at the same time, the calf itself should have those characteristics that indicate an aptitude to develop good milking qualities, viz: small, fine head, rather long in the muzzle, bright eyes, thin, tapering neck, small, well-shaped legs, long body, large hind-quarters, set wide behind, soft skin, fine hair—the color of which is immaterial—and above all, the milk mirror, or udder veins, should be large and well developed.

The raising of bull calves for breeders had better be left to those who have time and means to devote their attention to it, and procure the best animals to begin with. It would be no loss to the country were the numerous specimens of scrub bulls, too often seen, condemned to perpetual exile.

But there is no reason why a portion of the male calves, at least, should not be reared as bullocks, either for the team or the butcher; and it is important that such as are reserved for this purpose, should possess certain points indicative of future excellence, viz: well-shaped head, small ears, short, thick neck, deep brisket, broad chest and shoulders, fine bone, long body, well rounded behind the shoulders, straight back, wide loins, full quarters, tail thin and tapering, skin soft and not too thin.

It is too often the case, that animals are selected for rearing from their being of a pretty color, that takes the fancy of some member of the family; or the calf of some pet cow of the dairy-maid—without attention being paid to its defects or excellencies. Not unfrequently, valuable calves are fattened for veal, simply because their color is unpleasing to the eye. M.

KNOT KILLER.—Take of gum shellac half a pound; alcohol, half a pint; put the two in a tight bottle, shake occasionally, and in a few hours it is fit for use. Apply with a swab or brush to all knots and gummy places. This will prevent the paint from cleaving off the knots, or the pitch from coloring the paint. With this article on hand, one can use common lumber, if the knots are sound, in the place of clear, and no one is any the wiser. Having obtained the above receipt without paying the five dollars generally asked by painters, with the privilege of telling whom I please, I can do no better than to give it to your readers.—J. C. ADAMS, *Seymour, N. Y.*

SEED CORN.—Every farmer should know that if seed corn is frozen before it is dry, its vitality is destroyed. If farmers will take care that their seed corn is gathered in season to get thoroughly dried before it freezes, there will be no danger of a strange and mysterious failure of seed corn, if the corn is ripe, or nearly ripe, when it is gathered.—S. SHARPE, *Jackson, Mich.*

THE PROPER DEPTH OF UNDERDRAINING is at the point where the water from springs meets the surface water and becomes stagnant. Experience seems to show that, generally, drains four feet deep are the best.

Genesee Farmer Prize Essays.

CAN SHEEP BE PROFITABLY FATTENED IN WINTER, AND HOW?

THAT sheep can be profitably fattened in winter, or at least fed to the profit of the owner, we have no doubt. Although we believe that in most cases where sheep are fed in winter, they are made to gain but little flesh; the gain to the owner being in the difference of price which sheep generally bring in the months of March, April and May, over the price they can usually be bought for in the months of September, October and November. We have, indeed, known sheep pretended to be fed for four months during cold weather, which were not in as good condition at the end of the four months as at the commencement. The remark of a man to us, whose sheep we were offering to purchase last April, that he had fed them to poorness instead of fatness, would be applicable to many who have done what they call feeding sheep for the butcher.

We will, however, give our own way of feeding, and its results; promising that without conveniences of the right sort, added to all necessary care, it is useless to think of reaping a rich reward. We first erect good sheds of sufficient height, width, etc., to hold the hay we design to feed—putting the hay in such order as will make it convenient to feed it directly into the racks. The racks we construct on the back sill of the shed, boring holes with an inch augur on the inner edge of the sill a distance of about four inches apart. The sticks for the racks should be made smooth, and your sill if about ten inches thick, should be elevated six inches above the floor. Make your racks of any desired height. In front of the racks and attached to the sill, construct your trough in which to feed your grain. It is well to make the trough or plank two inches thick, that it may be sufficiently strong. The bottom of the trough should be eight inches wide. The side of the trough to which the sheep have access should be two inches high, and the back side six inches. Let the trough be made flaring; that is, broader at the top than at the bottom. To the front side of your trough fasten slats made of boards ten inches wide and two and a half feet long, placing the slats eight inches apart. This will give eighteen inches to each sheep, which is about the width required for sheep of one hundred and fifty lbs. weight.

Let the bottom of your trough be six inches lower than the top of your sill; all the better if your sill is hewn for the purpose, with the edge next to the trough depressed, so that the feed shall descend toward the trough. In this way all the leaves of hay, seed, etc., will find their way into the trough, to be consumed by the sheep. The slats may be secured in their places by simply nailing the bottoms to the side of the trough, or, what is better by cutting gains in the side of the trough and fitting them in nicely. At the top they may be fastened by placing a strip of plank on them and nail thereto. Thus we see, if we wish to feed one hundred sheep, we require one hundred and fifty feet length of shed. We lay a good plank floor for the sheep to stand on, and have it a little descending from the trough, so that their premise

may be cleaned as often as necessary. We do not elevate the floor above the ground, but simply bed the sleepers in the ground, on which we lay the plank, having the edges made straight so that the floor will be tight; and we do not then lose the manure under the floor. Were we feeding but few sheep, and those of about equal age and size, we would partition the trough into spaces of eighteen inches, enabling us to have our sheep fatten very evenly, by giving each his share of the grain. This, however, is attended with a little more trouble in feeding, as we can not as readily deal out by the pint or quart as by stringing it along wholesale. Make the slats and side of the trough, etc., sufficiently smooth that the sheep may not tear their wool when they come in contact with them.

It will be seen that our plan is not for large-horned sheep, as we never feed that kind. If sheep have only small horns, we saw them off. We do not, as we can not always get them, confine ourselves to one particular breed or kind, but rest satisfied with selecting those of good flesh, from three to five years of age, and as nearly of a size as possible. If we have not raised them, we purchase in the early part of the fall, that they may get domesticated, or, in other words, become acquainted with the premises they are to occupy. This is essential, as there are generally some shy ones which require a little attention to have them work in evenly.

As soon as the grass in the fields begins to lose its virtue by the frosts of autumn, begin to give them a little grain where they are, say corn, beans, peas, barley, etc., which they will soon learn to eat very well. This will not only prevent their losing flesh, but they will take it on, and it is much cheaper to do it at this season of the year than later, when the weather becomes colder. Whenever the cold rains set in, be sure and call them to the sheds already provided for them, and if they do not take readily to them, use a little ingenuity to familiarize them thereto. As cold weather increases, increase the amount of grain, until you find how much they require—feeding all the good clover hay they will eat. We have found corn-fodder, obtained from sowing corn so thick that the blades do not grow too large, to be equal to clover hay for feeding sheep, with this drawback: that the manure is not as rich in wheat-growing material as that made from feeding clover.

Let us here say that we have sometimes fed beans, and the result has always been satisfactory. We reckon one bushel of beans equal to one and one-fourth bushels of corn. We think a very advantageous way of feeding sheep with beans, is to pull and stack them before they are quite ripe, and when they are just cured in the stack, remove them to the sheds and feed without threshing. In this way the sheep eat all except the very roots. In our feeding sheep for the slaughter, we have been confined to the following grains: corn, beans and peas; and can not, therefore, speak experimentally of other grains.

Let it be understood that we are speaking of sheep worth the feeding, as we hold that small sheep for slaughtering are unprofitable. At all events, we have never made the little Merino, with his thin chest, narrow lips, and cat-made hams, pay for the feeding. We have found that a sheep four years old and weighing one hundred and fifty

lbs., would consume about one and one-fourth lbs. of hay and a quart of corn per day; and, if not neglected in any particular, will make about thirty lbs., live weight, in four months, say one hundred and twenty days. Thus we see that in the one hundred and twenty days, a sheep eats one hundred and fifty pounds of hay, and three and three-fourths bushels of corn. Pretty costly thirty lbs., indeed, were we to go no further in our reckoning. But we must not stop here. We have found in eight winters we have fed sheep, that, six out of the eight, sheep were worth twice as much per lb. in the months of March and April as in October and November preceding. So, if we pay on the first of December three cents per lb. for a sheep weighing one hundred and fifty lbs., four dollars and fifty cents, and first of April sell the sheep, then weighing one hundred and eighty lbs., for six cents per lb., that is, ten dollars and eighty cents, we have a fair remuneration for money invested. Corn with us has been worth an average of sixty cents per bushel, taking the past eight years. From this we find that three and three-fourths bushels of corn costs two dollars and twenty-five cents. The one hundred and fifty lbs. of hay, at eight dollars per ton is sixty cents.

Sheep sold for.....	\$10 80
One hundred and fifty lbs. hay.....	\$0 60
Three and three-fourths bushels corn.....	2 25
Cost of sheep.....	4 50

7 35

Gain..... \$3 45

Premising that the manure made amply pays for trouble of feeding, care, etc.

Some may perhaps think that the amount of hay in the above estimate is very small; but we have found, by actual measurement, reckoning four hundred cubic feet of well settled hay in the mow for a ton, that in feeding one quart of corn per day, it is all that a sheep of one hundred and fifty lbs. will consume. We wish it understood, that when we are speaking of hay, we do not mean dry, woody substances, worth to feed sheep about as much as a brush fence, but which some pack in their barns and denominate hay. We have sometimes fed a few potatoes and turnips in the early part of the winter, before the weather became severely cold, but consider them of too cold and watery a nature to be fed with profit when the weather is very freezing.

We will here give the statistics of a few winters feeding. In the fall of 1850, we purchased eighty sheep at two dollars and twenty-five cents per head, which was about two and a quarter cents per lb. We bought both hay and corn to feed them—hay at eight dollars per ton, and corn at fifty cents per bushel; and, in feeding them eighty days, they consumed four tons of hay and one hundred bushels of corn. At the end of eighty days, we sold them, to be delivered in Buffalo, at four dollars per head, amounting to \$320.

Sheep sold for.....	\$320 00
Cost of sheep.....	\$180 00
Four tons of hay.....	32 00
One hundred bushels corn.....	50 00
Expense of driving to Buffalo.....	9 00

271 00

Showing a gain of..... \$49 00

We would here say that these sheep were fed in the open field, and had only the care of a boy

fifteen years old. In the winter of 1852-3, we fed one hundred and twenty, but, as we have not actual data before us, we pass them over.

On the first of December, 1855, bought twelve pet sheep, for which we paid eighty-six dollars. On the 28th day of March following, we had them butchered and sold them as follows:

Meat of the twelve, 1,044 lbs., at 10 cents.....	\$104 40
Pelts " " " at \$2.....	24 00
172 lbs. rendered tallow, at 11 cents.....	18 92
Total.....	\$147 32
Fed 1,572 lbs. hay, at 80 cents per cwt.....	\$14 97
" 44 bushels corn, at 63 cents.....	27 72
Cost of sheep.....	86 00

125 69

Gain..... \$18 63

April 6th, 1857, sold thirty sheep for..... \$319 00

Nov. 15, 1856, paid for the thirty..... \$150 00

Fed 2 tons hay worth..... 25 00

" 76 bushels corn, at 70 cents..... 53 20

Expenses to market..... 15 80

244 00

Gain..... \$75 00

December, 1857, bought a small flock of Merinos, which we fed through the winter. They did us so little good, and we were so chagrined at ourselves for attempting to make anything of them for mutton, that we kept no data.

March 29th, 1859, sold twenty-three sheep at home for..... \$190 00

December 1, 1858, paid for the twenty-three..... \$103 00

Fed 2½ tons hay, at \$8..... 20 00

" 27 bushels corn, at 75 cents..... 20 25

143 25

Gain..... \$46 75

From the above, any one can draw their own conclusions, whether it would pay to feed sheep in winter. Would space permit, we would give a more detailed account of weights, etc., but as we are limited in space, for the present we end.

Sheridan, Chautauque Co., N. Y.

H. T. BAILEY.

WOULD IT BE PROFITABLE TO RAISE SWEET APPLES FOR FEEDING CATTLE AND SWINE.

This question certainly may be answered in the affirmative. It is a point, I believe, well established, that good apples are about as nutritious as potatoes, and with us a much surer crop; double the number can be raised on an acre, when the trees are grown, with less than half the labor. While the trees are growing, the land may be prudently cultivated, much to the advantage of the trees, and the crops may be made to be remunerative. Low, hoed crops are much the best for the trees, such as potatoes, peas, beans, turnips, etc. On the Pelham farm, they raised one hundred and forty bushels of ears of corn per acre, between the rows of their fruit trees, which were eighteen years old, and this orchard was in the finest state of bearing. (*Downing's Fruit and Fruit Trees of America*, p. 63.) This is plain proof that we may raise profitable crops among our fruit trees, and that the use of the land is not lost until they come into bearing,—the great objection of some to planting fruit trees.

Now, in regard to the advantages of feeding apples to hogs. I have had some little experience, and when I first tried it, I was surprised at the result. About the first of October, some years ago, I bought a number of small hogs, and put them in an orchard covered with fine apples. I asked a man who was well skilled in raising and fattening

hogs, how much I could make them weigh by killing time? He answered, if I kept them late, I could make them weigh from 120 to 125 lbs., net. I kept them in the orchard till about the first of the following January, and threw a little corn to them every day, until a while before I killed them, when I increased the amount,—but not to the extent usually given in fattening hogs—when they weighed (net weight) 165, 170, 180, etc. Better, sweeter pork and bacon we never had. This convinced me that apples could be fed to hogs with great advantage.

That apples can be made very profitable for feeding hogs, I deduce from the following calculation: Suppose we take one acre,—what applies to one acre, applies to any number of acres treated in the same way—and plant it in apple trees a little less than thirty feet apart each way, we will have fifty trees to the acre. We have seen that the land will produce remunerative crops long after the trees are ten years old. Suppose the trees to be well grown and in a good bearing state at ten years old,—as every man, by good cultivation, may have them at that age—say the crop of apples on a tree will increase the weight of a hog thirty pounds,—a small amount—a tree will be worth, at the present price of hogs (gross weight), \$1.35; and an acre would be worth \$67.50 per year. If the acre be cultivated at the same time, in other crops, they will pay for the cultivation. Surely, this result will be considered profitable. But the estimate does not stop here. Five dollars each will be considered a small sum for the trees, and you have fifty to the acre, you have added \$250 to the permanent value of an acre of land. We might plant a large number of winter apples, say *Rauhes Janet* (they seldom miss bearing here), and gather them in piles convenient for feeding, and cover them thickly with straw. In this manner they would be preserved nearly or quite through the winter. This would greatly decrease the amount of grain necessary to keep hogs through the winter.

As apples are very nutritious, and as cattle relish them very much, they would be fine feed for them; but the better way to feed them to cattle would be to grind them, as they sometimes get choked by them. Gromd and mixed with meal, they make a very fine feed for milch cows. Our country is subject to long drouths. When this happens, apples may be made very valuable to help out the grain crops, where they have partially failed; the apple not being as easily affected by drouth as the grain crops. It may be objected, that the apple does not bear every year. If we will get good, reliable sorts, suitable to the district of country where we live, and keep the land in good condition, supplying it with the ingredients drawn from it by the crops, an orchard will seldom fail to bear. Let us compare the value of a crop of apples to a crop of corn. Many people cultivate corn on land that does not produce thirty bushels to the acre, and forty bushels is more than an average crop. Forty cents per bushel is considered a good price here—\$16 per acre. See the apple crop, \$67.50 per acre. It may be said that corn will sell at more than forty cents per bushel in some places. If so, hogs will sell at more than four and a half cents per lb.; so the calculation will be equal. There is no doubt that pork and beef, and milk and butter, may be

principally made cheaper on apples than on grain; or, perhaps, than in any other way. If apples are so profitable for stock purposes, it may be asked, why do not people engage more extensively in their culture? I answer, because the subject is not generally understood. I look to the time in great confidence, at no distant period, when large orchards of the finest apples will be planted for stock raising, and with the greatest profit to the planter.

I have put the period of an orchard coming into bearing at ten years old, but trees will bear profitable crops long before that time. I have trees planted four years ago, that bore this season, and I hope to get a smart crop from them next year. The subject has only to be brought before the public in a right manner, to induce them to engage in it. People learn more by example than precept. When they see the matter tested by demonstration, they will then act. I will remark that orchards, to remain in good bearing and profitable condition, must be well manured and cultivated. We can not expect to be continually drawing the elements of fertility from the soil, and not replacing them, without a failure of the trees and in the crops.

Chesher's Store, Anderson Co., Ky. A. G. MULLINS.

WOULD IT BE MORE PROFITABLE TO RAISE RYE INSTEAD OF OATS FOR FEEDING?

I would say not, if the farmers will raise the right kind of oats. We have here, in North Carolina, the Egyptian oats. We sow them in September, and they stand the winter as well as rye, and mature about the middle of June (about the same time of seeding and harvesting as our rye).

The Egyptian or winter oats are larger and heavier than the common spring oats. You may sow them on land that would not make more than ten or twelve bushels of rye per acre, and you will get from fifteen to twenty bushels of oats. The oat straw will be better than that of the rye, and equally as long. It may be the best plan to give my remarks in two classes, (as I am writing more for information than for a premium): first, of rye; second, of oats.

In North Carolina, rye is but little raised any more. It will not yield more than ten or twelve bushels to the acre, according to the land. The average is about twelve bushels to the acre, and weighing fifty-six lbs. per bushel, worth eighty cents, which is about nine dollars and sixty cents per acre for grain. The rye straw makes good food when cut, if it be cut very short; but unless it is well frailed in threshing, the straw is rather hard, and rye straw never has as much fodder on in as oat straw, which makes it less useful as a hay for cattle.

The Egyptian or winter oats are being raised by most farmers in the southern and middle counties of North Carolina. They were introduced into this (Stanly) county, by Dr. CRONE, some eight years since, and, instead of failing, as most new seeds do, they improve and get better. They yield from fifteen to forty bushels per acre, according to the land,—a sure crop on any kind. They grow high enough to save well on the poorest of land, where the common spring oats would have to be pastured, if saved at all. On good land, they grow from five to seven feet high (and I have heard of some stalks

nine feet), and have heads from ten to eighteen inches long. These oats average about twenty-five bushels to the acre, weigh forty-five lbs., and worth sixty-five cents, thus making sixteen dollars and twenty-five cents per acre for grain. The straw is the best of food when cut and mixed with meal. The straw is soft and has large blades, which make it a good hay for cattle, and horses will eat it from the rack more heartily than they will hay. One bushel per acre is seed enough to sow, and some farmers have raised three crops from one seeding, by plowing in the scattered heads, instead of pasturing. Mr. FISHER says his crop for 1859, which was the third from one time sowing, was better than the first. The time and labor for raising oats will not cost any more than that of rye, and is much pleasanter work in harvest. The farmer will make sixty-seven per cent in weight per acre, by raising oats, and if for sale, seventy-three per cent in money. At the same time oat straw is worth fifty per cent. more than rye straw for food as a hay, and much better for cutting.

If you think this will be of any advantage to Northern farmers, you may publish it for their benefit, and if they have not got the Egyptian or winter oats, I advise them to get some and try them, for they are much better for feeding than rye, and leave the land in better order to fallow for corn, in this Southern country.

Leo, Stanly Co., N. C.

JOHN T. HOWELL.

FEEDING CATTLE.

"Is it better to feed cattle two or three times a day in winter?"

THREE times. For, when cattle are turned into good pasture, they soon eat their fill, and then lie down to chew their cuds. This they will do from three to five times a day, if the weather be cool and the flies do not trouble them. When left to take their own course in the matter, they act according to nature's teaching. By this we may learn that they require feeding at least three times each day. If fed but twice a day, they must either be fed so much that a portion of their food will be left lying before them after they are satisfied; or, if fed only as much as they will eat up clean, they must suffer inconvenience from hunger before the next feeding time. Cattle, when fed more than they can eat at once, leave the coarser portions, and will not eat it until pressed by want. Better feed five times a day than but twice. Cleanliness and regularity are indispensable, let the feedings be few or many.

M. GARNSEY

IS IT BEST TO HILL CORN, OR NOT?

FROM my observations, I conclude that no particular advantage is gained by hilling corn, if the ground could be as thoroughly and easily stirred without raising a hill. But the cultivator naturally throws the dirt toward the plants, and it would require labor to remove it. As corn has always done well when hilled, and, perhaps, *as well* when not hilled, it strikes me that it is a question rather of convenience than anything else. Make the soil light and mellow to a great depth, by subsoiling or underdraining, and there will be no trouble from excess of moisture in a wet time, whether hilled or not.

Attica, N. Y.

##L S ##

THE BEST METHOD OF RAISING AND FATTENING HOGS.*

JOHN SKAATS, of Alexander, Genesee Co., N. Y., raises the cheapest pork and heaviest pigs of any man within my knowledge. His peculiarities are somewhat as follows:

1. Keep the breeding sow pork fat.†
2. Begin to feed the pigs as soon as they will eat; new milk at first, then slops, sour milk, apples, cooked and bran shorts stirred in, etc.
3. Never feed the pigs with the sow. Give them an apartment with small openings, that they may eat at their leisure, while the sow can enjoy her own dish at leisure, and not root them out of the trough.
4. Never let them get hungry. At first, feed six times a day,—never less than four.
5. Feed regularly. First feeding at 4 A. M., and last at 9 P. M.—punctually and exactly.
6. Never *begin* to fatten, but always keep them fat.
7. Cook their food, or let it sour in the swill-barrel, if given raw. Sour apples that have lain in the swill forty-eight hours, they will relish, when they would not touch a fresh one.
8. He uses very little corn—sometimes none; giving only coarse feed, such as bran, shorts, etc.
9. He uses a judicious cross between the Suffolk and Byfield breeds.
10. He never keeps a pig till it is over a year old, except for breeding purposes.
11. He makes pigs, at ten months old, dress over four hundred lbs.,—four hundred being his *average* mark.

Sometimes he allows his swine a small range in the best white clover pasture, and at other times he keeps them close from pighood to porkhood.

Albion, N. Y.

†† L. S. ††

We intend not to say how a few hogs can be raised to an advantage, but how a man may raise them as a business, with the least labor and expense, and leave the land in the best condition. All farming, in my opinion, ought to be conducted with a reference to the continual improvement of the soil. Present gain, by a deterioration of the soil, will ultimately prove to be a loss.

To succeed in raising hogs, as in other stock, we should have a good breed. The Berkshire crossed with our common hogs, constitutes a very good stock. The Berkshire communicates its fattening properties and early maturity,—two very desirable qualities—and the common stock gives size. A cross of the Berkshire on the Irish grazier makes a very good stock.

Say we have a good stock to begin with; a stock that matures early and fattens well. The pigs should come from the middle of March to May. There is great advantage in pigs coming at this time; as we can graze them through two summers, and have them to keep only through one winter. They come to be of fine size by the second fall or winter. Hogs may be pushed into market younger,

but at more expense in grain, and they will be smaller at fattening time, which is a great disadvantage.

The greatest profit in hogs is in grazing them, and turning them upon grain fields, where they can gather for themselves; and having them large and in good condition at fattening time. The sows and pigs should be kept in good growing condition, by feeding them on Indian corn, or corn-meal made into slop. As soon as the clover begins to blossom, or a little before, turn them upon it. Sows and pigs should still be given some grain, while in the clover. Have a field of oats early sown,—the size of the field to be in proportion to the number of hogs—and as soon as the oats are ripe, turn the hogs upon them to gather for themselves. To pasture hogs to the best advantage through the summer, it will be necessary to sow a field of rye, as above, and after they have eaten the oats, turn them upon the rye. Though the rye will be ripe before the oats, it is thought better to let the beards rot, and it will keep good in the field until September; whereas the oats will rot in a short time. After the hogs have eaten the rye, they may go upon the clover again. They then should have old corn to keep them from being reduced in flesh; the second crop of clover not being as good as the first. This method may appear very wasteful to those not familiar with it; but if a little grain is left on the field, it will be an excellent fertilizer, and the straw and everything that grew on the field is left there, except the fat that is driven off with the hogs. This leaves the field in good condition for the next year.

The hogs should be kept in good condition through the winter and spring. The best place to winter them is in the woods, and let them have low, long, dry shelters to sleep in. Let them be turned on the clover the second year about the time it blossoms, and I prefer to give them a little grain. Then let them go on the oats and rye as they did the first year. When they come off the rye the second year, it is very important to grain feed them while on clover, until they are put up to fatten. It is a great advantage to have hogs large and in good condition when fattening time commences. A lot or small field of corn, early planted, to turn on about the 15th or 20th of September, is an excellent plan; or fence off, with a temporary fence, a portion of a larger field. Continue the hogs in the field until about the middle of October or the first of November; then take them to a field intended to be plowed for next season (a clover field is best), and feed them plentifully until about the first of December, at which time they will be fit for market or slaughtering.

By feeding down upon the field, you save the labor of gathering, and leave all that grew upon it, except what is driven off in fat upon the hogs. By sowing the field in rye a few days before the hogs are taken off, a fine crop can be obtained. The grain left upon the fields pastured during the summer will soon spring up, and afford a fine fall and early winter pasture. If it be intended to sow the oat and rye fields in clover, the pasturing down of the grain makes no difference. Take off the hogs as soon as they eat the grain. The decaying straw and manure left upon the field will be an advantage to the clover.

* Of the essays sent in on this subject, the committee recommend the publication of the two here given, and we accordingly award a prize to each of them.

† Will they breed well when so fat?

The hogs should be well salted, and have access to water. From the middle of October to the first of November, it is important to have a good, dry shelter for them to sleep in; earlier than that, they will generally sleep in the open air. If it is desired to fatten hogs the first season after we commence raising, of course we must buy them of suitable size in the spring. The number kept to breed from must be suitable to the number we want to raise. A good brood sow will raise two litters a year, and from six to ten at a litter. A little experience in this matter will direct us aright.

By a strict attention to the above method of raising and fattening hogs, as much or more can be obtained for the grain than it can be sold for, and all of it fed upon the farm, which is no small consideration. By raising grain and selling it off the farm, it will be becoming poorer. By raising and judiciously fattening hogs, the farm will be growing richer. This, in ten years, will make a great difference. I have known some farms, reduced almost to sterility by bad management, by a proper management in sowing rye, and oats, and clover, and feeding them on the ground, made very productive. Feeding Indian corn upon the land is very improving to it. I once knew a field planted in corn for four years in succession, and the last crop was as good as any that preceded it.

In regard to the worth of grain fed to hogs, I made one long-continued experiment, which satisfied me that it is remunerative. Some years ago, I had a lot of corn which I could sell for only twenty cents per bushel. I concluded I would feed it to some pigs, which came about New Year's. I gave them two ears a day each, until April—about ninety days. I weighed an average one on the 1st of April, and it weighed fifty-two lbs. It was then worth two and a half cents per lb., or \$1.30. It had eaten one and a half bushels of corn. I then increased the feed to three ears per day, until the 15th of July—about one hundred and six days. Each eat, from April until the 15th of July, three hundred and eighteen ears; weight one hundred and thirty lbs., and worth \$3.25. They had eaten each, from January to the 15th of July, four hundred and ninety-eight ears,—not five bushels of corn, which was only worth \$1; whereas the shoat was worth \$3.25. While corn was worth only \$1 for five bushels in the market, less than five bushels was worth \$3.25 fed to hogs. This was effected without clover in the summer. By calculating the above weights at four to five cents per lb., you will have the worth of the pigs at present prices. This convinced me that corn can be profitably fed to hogs.

I think now I have redeemed my promise; shown how hogs can be raised as a business, at the least amount of labor and expense, and leave the land in the best condition.

A. G. MULLINS.

Chesher's Stone, Anderson Co., Ky.

SUBSTITUTES FOR HAY.

"What are the best substitutes for hay, in feeding cattle, horses and sheep in winter?"

I know of but one article that could be substituted for hay in this section of country, and that is corn-stalks; and I think they might be used altogether for that purpose, with advantage and profit. Some would, perhaps, add roots, but these are as necessary when stock are fed hay, and more so,

than when kept upon cornstalks; the latter being of a more laxative nature than hay, and, next to grass, the most natural food for all kinds of stock. I would by no means discourage the raising of roots for feeding stock, but there is not that necessity for them, when they are fed cornstalks, that there is when they are kept upon hay. An acre of cornstalks, if well taken care of, is worth nearly or quite as much as an acre of clover hay, and then we have the corn besides—an item well worthy of consideration in such times as these. It may be said by some, that corn is an uncertain crop, and liable, in many localities, to be cut off with the frost and the fodder injured. But let those who live in such places plant early kinds, and not continue to plant the same kinds that their grandfathers did, and the risk will be much diminished. I have raised good sound corn the past season, of the King Phillip variety, that could all be cribbed and saved without any sorting, which was not up when the June frost occurred, and was ripe previous to the frost in September. Who can estimate the advantage to the country, had this or some other early variety been more extensively planted the past season? Horses, cattle and sheep are very fond of cornstalks, and they will greatly mitigate, if not entirely cure, the heaves,—a disease so prevalent among horses which are kept entirely upon hay, and especially clover.

If the corn crop does not furnish fodder sufficient for wintering the stock, corn can be sown broadcast or in drills, and in this way a much larger amount of good fodder can be obtained to the acre than of hay. And it is a fact which is freely admitted by all, that for milch cows they are far superior to hay. The only difficulty is in curing them so as to keep. But if they are cut early, bound and set up in shocks, and left standing till the latter part of fall or the fore part of winter, and then drawn and put into small stacks, there will be little doubt of their keeping the stock in good condition. Let farmers substitute the corn for the hay crop, keep more stock, and use the greater part of the corn for fattening cattle and sheep. This will enable them to increase largely their amount of manure; for the more manure, the more corn, and the larger crops of corn, the more stock can be kept and fattened; and they will soon find their farms growing richer, and that the hay crop is the dearest crop a man can raise, for the purpose of feeding cattle, horses or sheep.

Newfane, Niagara Co., N. Y.

C. C. WILSON.

GOOD HOGS.

"What is the best breed or breeds of hogs for general purposes?"

ONE of my neighbors (JOHN SKAATS) has made some very successful experiments in regard to the best breeds of swine for making good and cheap pork. By a cross of the Suffolk and Byfield, nearly equal, I believe, he succeeds in bringing *ten months pigs* up to four hundred lbs., and sometimes over. Having watched for "brag" porkers in the papers, I have read of none that, age for age, would weigh down his.*

Attica, N. Y.

†† L. s. ††

* This is the only essay received on this subject, and, though not as full as we could desire, we award it the prize in hope that it may call out further information. com.

WAGON TIRES.

Would not a wagon with a tire four or five inches wide be better for farm purposes than the one now in use?

WE are a progressive people—"Onward, onward"—something new and better—more labor-saving," is the motto of this generation. The great changes our many valuable agricultural journals have wrought in the various operations of the farm, within a few short years, are plainly to be seen. A higher standard for improvement than ever, is now before us. "Slip-shod" farming is among the things that were. Out-door hay stacks, and "little hay barns," with shivering, bow-backed specimens of four-footed creatures, standing grouped about, are becoming each year more scarce; and the one neat, well-battered barn, with its large, comfortable basement, now holds those same specimens—glossy-haired and soft-handlers, so that one would fail to recognize them. The manure of each year, from the same farm, is yearly increasing in quantity and value, by this new order of things. More time and labor must necessarily be given to the disposal of this increasing mine of wealth from our barn-yard, and replacing it with the raw material—dry leaves, saw-dust, muck, etc. The greater the ease and convenience with which we can make this exchange, so much the less is the cost of our farming operations to foot up for the year. This is a matter that must attract the attention of every farmer who follows his occupation for profit. A sleigh in summer is not available. Our common, high-wheeled, narrow-tired wagon, for farm purposes, is using unprofitably the strength of ourselves and our teams. In place of it, I would recommend a low-wheeled, broad-tired vehicle, as follows: If you have a strong, heavy lumber wagon—like my own, for instance, one of "Barry's best"—and do not wish another, procure a set of wheels, (it will probably be necessary now to have them made to order; but I prophesy that in a few years they can be procured at any first-class establishment,) with hubs to fit your axletrees—front wheels about two feet six inches high, and hind ones three feet, (or larger if you wish,) with felloes and tires six inches wide. The tire need not be very thick, as the great width will carry strength sufficient; for it is not to be supposed that such a wagon will be often driven over rough roads at a "2.40 gait." For driving any distance on the roads, change the wheels to the high, narrow-tired ones, if you prefer. The advantages of the low, broad-tired wheels are: for side-hill work, less liable to overturn; for drawing hay or grain, the labor of pitching on a load is lessened materially; the small stones left set upon edge by the "cutting in" of a narrow wheel, are left flat, as though a roller had run over the ground; the surface still left, without more extra labor, smooth for the "mower;" another reason—and who, that has ever drove a "mower," has not been tempted to s—blow, as he "bobbed" over the ruts left by the wagon the last spring.

But the great and most desirable feature of the whole, is in drawing manure in early spring, or wet weather, over the meadow. While the narrow tire and felloes "go out of sight," the broad tire rolls over the green sward, scarcely leaving a trace of its onward progress. The advantage in loading stone, wood, logs, etc., upon a wagon of this height, is obvious to any practical man. For

very steep side-hills, I would recommend a new gearing: making the axles each two feet longer—leaving box and bolsters the same width, if preferred. A fair truck, for light purposes, may be made cheaply by using a good quality of oak plank for wheels, two and a half inches thick—using two thicknesses, pinned together, with the grain of the wood at right angles, thus breaking the joints and strengthening it materially—and using heavy band iron for tire. But this, of course, will not compare with a regularly constructed spoke wheel.

JOSEPH JULIAND, 2D.

Bainbridge, N. Y.

WATER FOR STOCK.

"On the necessity of a regular and abundant supply of water for stock at all seasons."

THE importance of an abundant supply of water for stock is about the same as that of food. An animal subjected to hard labor, should be regularly fed two or three times a day, and not at short and irregular intervals; as the process of digestion occupies a considerable time, and, after that, the stomach and digestive functions need time for relaxation, and to reproduce the needed stimulus of gastric juice for another task. It needs drink, first, to dilute the food, that it may be more easily acted on by the gastric fluid; second, to maintain an equilibrium of the fluids of the system, and to counteract the continual exhalation and waste of moisture, caused by the action of the elements, the wear and tear of the vital process, and of labor. This should be supplied as needed; and the desire of the animal is a sure guide, as the sense of thirst is the result of a want of fluids in the system. It will be seen that this want of the system is very variable, and is influenced by various circumstances. It is reported, as the result of actual experiment, that a man who was at work in a glass-factory, was found to have lost in weight five pounds in one hour, by exhalation, which was a direct tax on the fluids of the system, and must be supplied or restored again by drinks. Now, this is the effect of labor, exercise, the action of the sun's rays, of the atmosphere, respiration, or of vital action in all animals. There are various opinions as to the importance of taking drinks with food, among humans; but whichever is right in this case, is of no importance with animals, guided by natural appetites, unrestrained.

Drink is a necessity of animal life, as well as food; and nature is a sure guide as to its frequency. For stock running at large, and especially in the heat of summer, it should always be at hand, in abundance, that the animal may take just what is needed, rather than an overdraught at long intervals. On clear days, when the heat is oppressive, they will need it much more frequently and in greater abundance than in cloudy or cool weather. In winter, the demand is not so great, but it should then be constantly on hand, that it may be taken in small quantities, to prevent the too rapid reduction of heat consequent on an overdraught. In this way, stock may be kept in better flesh, with the same food, and be less exposed to attacks of disease from colds, besides enjoying more the comforts of life.

R. G. NYE.

Galesburg, Ill.

WHITE SPECKS IN BUTTER.

In reading the November number of the *Farmer*, I see in your request for essays, one which will find a response from the ladies, namely: "What is the cause of, and best remedy for, white specks in butter?" In answer, I will give my opinion, from an experience for many years in butter-making. I have found whenever a current of air has come directly upon the milk, that the cream would become hardened in small specks on the surface, which the process of churning would not break, and they would become incorporated in the butter. In windy weather, these particles are the most quickly formed.

My remedy for this defect, is not to allow a draught of air direct upon the milk, nor to allow the milk to stand so long that the action of the atmosphere will harden the cream; but to skim it as soon as sour, and, if possible, before the milk thickens. A tablespoonful of salt is thrown into a jar,—which is kept in a cool place—into which the cream is put, and briskly stirred, whenever cream is put in, with a stick kept in the jar for that use, till sufficient is accumulated for churning. The cream is put into the churn, after it has been well soaked in warm or cold water, as the weather admits; adding to the cream a quart or two of new or sweet milk, which, in cold weather, is heated sufficiently to warm the cream. This obviates the necessity of standing the churn in a warm corner until the cream is at a proper temperature for churning, and the addition of the milk thins the cream, so that when the butter forms it will be perfectly clear. Sometimes, when the buttermilk begins to separate, water is thrown in, a little at a time, but never when sufficient sweet milk has been added before churning. The churning is always done in a short time. Butter that is put down for market, should have as little water used about it as possible.

When I observe these rules, I always have solid, golden-colored butter, free from white specks, which, when properly packed, with all the buttermilk worked out, will keep sweet as long as you may desire, and be fit for the daintiest palate.

Westport, Essex Co., N. Y. HARRIET B. NEWELL.

VETCHES AND TARES.

On the best method of cultivating and feeding out Vetches or Tares, and can they be profitably grown in this climate?

In cultivating tares, we look upon them as a green or fallow crop, and sow them in the same field with our root and green crops. In preparing land for the tares, we think the best method is to manure the ground in the fall, and plow it carefully down. If not plowed in the fall, it ought to be plowed early in the spring. Then, as soon as the ground is fit to work, we go over it with a cultivator, making a nice mellow seed bed, and then sow the tares at the rate of about two bushels per acre. Where the crop is sown for soiling, it is well to sow early, and about half a bushel of oats mixed with the tares. The oats will, in a measure, prevent the tares from lodging, and will consequently keep them from dust and other impurities; as when the season is damp, the tares are apt to lie down and mildew. In that case, stock do not eat them as well. A top dressing of plaster or ashes, when

the plants begin to make their appearance above the ground, will promote an early growth. If any of the tares are intended for seed, the plaster had better be omitted; as on rich soils, they grow too much to vines, if plastered. If wanted in large quantities for soiling, they should be sown at intervals of from ten days to a fortnight, so that they may be fed to stock when they are in their greatest perfection—that is, from the time the blossoms begin to appear till the seed is fully formed.

The principal uses of tares are for soiling, feeding in the house to working horses at noon during the season of summer fallowing, or while working them in mowing and reaping machines, drawing in grain, or any busy season, when they have not time to fill themselves on our short summer pastures. They are also useful to feed to milch cows, causing them to give abundance of rich milk, and consequently the finest butter. Young calves do well on them; and even store pigs thrive on them, after the pods begin to fill. Tares are best cut as wanted; or at most, no more ought to be cut at once than can be used in the course of the day. Every farmer should sow a small portion of his farm with tares or vetches, as a soiling and feeding crop; as he would by this means be provided, in the months of July and August, with a most valuable stock of green provender to feed his cattle and horses, when, in all probability, the pasturage will be short, owing to the influence of heat and drought.

Tares seem to grow as well in this climate as in Great Britain; the only difference that we can see is, that here, in most cases, they will only cut once, unless the season proves wet—in which case we have cut them a second time. There are many varieties of tares; that commonly cultivated here is named *vicia sativa*. In England, they sow a fall or winter variety, which we have never tried here.

Cobourg, C. W.

W. R.

WOOD LAND.

"How much timber should be reserved on a fifty, seventy-five, or one hundred acre farm for use?"

BEING a resident of one of the finest wooded sections of country that I have ever seen, it has been a source of sorrow and regret to me to see the wanton destruction of a great deal of our valuable timber; and if we continue our present wholesale mode of destruction, timber will in a few years be as scarce in Canada as in the middle of an Illinois prairie, and we have no substitute to use for fuel during our long winters. On mentioning the subject to others who, in most other cases, are careful and enlightened men, their answer has in general been, "I have plenty to last me while I live." Others have answered, "There is more timber in the country than we will ever use;" shutting their eyes, as it were, to the fact that their own homesteads and their immediate vicinity has been settled inside of perhaps twenty years; and the timber is already so scarce that they will perhaps have enough to last out their lives, leaving bare fields and no timber, for either fuel or fencing purposes, for their posterity.

As we are all possessed of one hundred acre lots here, I have often viewed with regret the quantity of timber-land which each man in his judgment has left for the future; some leaving ten, and some fifteen acres,—which would not be so bad, but, not

having used forethought during the time they were clearing the rest of their land, they find when they have done clearing, that what is left is of little value, all the best having been culled out.

Considering that my neighbors' plans, or rather no plans, were erroneous, when I commenced clearing, I set apart twenty acres for woodland on one corner of my lot. I would keep my woodland in as square a form as possible, as the storms have less effect in overturning the larger and more valuable trees when in a compact form, than when it is stretched out in a long, narrow strip. I consider twenty acres of woodland sufficient on a one hundred acre farm, if managed in a judicious manner. My plan would be, to make use of all the fallen timber first, then the dead and unsightly, and lastly the overgrown trees. The benefit of this plan would be, the rendering of the woodland more open and roomy; thus allowing a greater chance of growth to the young and thrifty trees. If a much less quantity than twenty acres is retained out of the original forest, the wind will have such force upon it as to overthrow the most valuable of the timber. I have remarked in all small lots, after the larger timber has been either blown down or otherwise removed, a very inferior growth of young timber, it being always stunted and bushy. These difficulties, I believe, will be overcome by keeping a twenty acre lot, and by judicious thinning of the timber, as recommended above. It will beautify and ornament the place, and be of lasting benefit to our posterity.

A. B. C.

Township of Amaranth, C. W.

RECREATIONS AND AMUSEMENTS FOR FARMERS AND THEIR FAMILIES.

No people need more and better recreations than the farming community, and no community should be more careful to have their amusements directed in the proper channel. Recreations and amusements lay the foundation of the character, in too many instances. Amusements often occupy the mind for a considerable time afterward. If our amusements are of a character that may, under extreme circumstances, run into unlawful and unwholesome channels, the mind will also occupy the same ground, and lead us into corrupt and dissipated habits. If our amusements are of that character which would be likely to cultivate our physical and mental powers, they would not lead us into indolence, carelessness, or dissipation. However, recreations and amusements are creatures of circumstances. What would be a recreation at one time, would be a tax at another, and what would be amusement at one time, would be annoyance at another. Much depends on the state of the mind and feelings. Still, certain amusements may become habitual by careful training.

Parents, and farmers in particular, should select amusements which will lead the mind into the channel of their pursuits in life; participating freely themselves, and manifesting great pleasure in so doing. Amusements that would call the mind from home, or estrange it from its occupation, should not be introduced. Agriculturists should adopt such amusements as would teach lessons of economy, frugality, industry, ambition, fortitude, manliness, truthfulness, humanity, love, etc.; and never indulge or countenance an amusement which begets weak-

ness or imbecility of mind. Let every recreation contribute to elevate the mind, rather than reduce it below its every-day standard. Recreations and amusements are useful, if wisely employed. If not, they become traps and snares to the youthful mind.

As agriculture is the highest and most laudable calling to which man can aspire, it is safe to direct the youthful mind into that channel. This has no baneful influence on any other pursuit, and of all men, farmers have the means and opportunities to offer amusements and recreations to their families, of the most ennobling character. Farmers' sons can be indulged in yoking and breaking steer calves, and at the same time cultivate a taste for good oxen. They can have a piece of ground to cultivate, and make a recreation of the labor it requires. They may be indulged with a sled, cart, etc., and be taught order and system with them. Their daughters may be indulged with dolls, dishes, etc., to teach them order and system. They should be indulged in having their knitting, sewing, washing, ironing, mending, cooking, etc., and be under the superintendence of the mother or elder sister, who should instruct and encourage them. Farmers' families should observe all the holidays, and be particular in making them interesting, by entering into the merits of them with energy and feeling. A suitable daughter should be mistress of the feast, and the family treated as guests. The son should wait on the table with all the politeness he is master of, and the conversation of all should be that of a visiting party. On another day, some others of the family to be actors. Each member of the family should have their trees, flowers, and green-house plants to cultivate. Some inducement should be held out in each department of work, so that those who perform it may feel interested. This takes from labor its sharp, servile edge. A farmer can easily infuse a deep interest into his family in all branches of his business. He can make himself useful and happy in participating in all their amusements. Singing should be practiced at set times by the family. Girls and boys should mingle in skating, ball-playing, kite-flying, etc. Make all the leisure time interesting in the family, and few will want to go from home for a recess.

Farmers should make themselves particularly interesting to their family, so that their presence would be agreeable, under all circumstances. Dispense with all austere, harsh and arbitrary language and habits. Teach the family to speak kindly to each other, act gently, and to be courteous to each other in all their intercourse and amusements. Teach them, in kindness, the impropriety of a foolish pride, the silly appearance of gaudy trappings and extravagant decorations. Teach them to be above all indolent base, demoralizing, and silly fashions; and you will shun many extravagant, foolish, and pernicious amusements. Make all the work and duties go off with a zest; keeping up good appearances, preserving a cheerful and tranquil state of mind, and sympathize freely with each member, be their conditions what they may. Keep up this condition of affairs at home, and recreations and amusements will be little called for, and less sought after. You will have no dissipated or abandoned sons, no abandoned daughters, or heart-broken wives.

W. PIERCE.

Ravenna, Ohio.

HUNTING WILD BEES.

"The best method of hunting Wild Bees; together with the tools used, etc."

HUNTING wild bees is something of a trade; and, as I have worked a little at it, I will describe my method of doing the thing, and the tools with which I work. And first, the tools: I have a box made of thin pine boards (lath will do,) eight inches long, four inches wide, and three inches deep, with a loose cover. In one side of the box, at the top, and half way the length, I cut a triangular hole, each side of which is one-fourth of an inch, so that I can cover it with the end of my middle finger, when carrying the box. In this box I fit a piece of old, sound, dry honey-comb, (such as has been used by the bees for brood-comb,) so tight that it will not fall out if the box is turned upside down. Next, I prepare a "stand," by taking a piece of sapling, one and a half inches in diameter and five feet long, and after cutting the butt off square, I split into quarters about a foot, and insert some pieces of wood at the bottom of the splits, so as to hold them open about three inches at their ends, for the box to stand on; then sharpen the top end, so that it can be stuck into the ground. I use a piece of an old, broken dinner pot, or other cast iron vessel, about six inches in diameter, to burn comb on to "raise the bees," if I can find none on the flowers, or if it is out of season for flowers. These, with an axe, a bottle of honey, and a handle-basket to carry my "traps" in, are all the tools absolutely necessary for bee-hunting; though some carry a pocket telescope, for better seeing the bees.

Now, as to my method of hunting: I reduce my honey a little with water, and put but a little at a time into the comb. In one corner of the box I put a small ball of soft paper, on which I have dropped a drop or two of oil of anise. By no means put any anise into the honey. I catch a single bee in my box, holding my finger over the hole until he is still, and then I set the box on the stand, which I have previously stuck into the ground. Be very careful not to disturb him, by opening the box to look in; for, as soon as he has filled himself, he will come out at the hole, examine the box and premises a little and fly away to his hive. Do not catch another bee, but wait patiently for this to return, which he will do in fifteen or twenty minutes, if he has not been hurt or disturbed. One can hardly ever get a correct line the first time the bee goes. Probably about the second or third time he returns, others will come with him. I never make the first move, until I get three or four bees to coming; then, after getting a correct line, I move as fast as possible, from forty to sixty rods at a time, until I am satisfied I have come to, or passed the tree. If past the tree, look back on the line, or get a cross line. The best way to examine a tree is to stand close to the trunk, and look up it, or look around it, near the outer extremities of the limbs. Bees generally go in at the east or south side of the tree, and sometimes at the west side. I never found a tree where they went in at the north side. If it is out of season for flowers, make a small fire, set over it the piece of iron, and heat it nearly red hot; then take it off and put into it, a little at a time, some broken honey-comb, and burn it. If there are any bees within

a hundred rods of you to the leeward of the smoke, they will soon come to you. As soon as you hear one, uncover your box, and he will soon find it. As soon as he goes to work, proceed as before, keeping the box covered. They will soon learn to work through the hole.

Now, about getting the honey—supposing you have found it. Some make a large brush-heap to fall the tree on to, so as not to break it; others "ease it down," by falling it on to another tree that has been partly cut down. I find it the best way to fall the tree as flat on the ground as possible. Have a small fire burning as near where the honey will fall as convenient; and have several large brimstone matches ready. As soon as the tree is down, "go in" and smother and burn the bees as they arise. They will not show fight long, but will rise and go up to where the hive was. Some use small slips of straw for burning the bees, but it is a slow way. In some seasons, I have made bee-hunting quite profitable. A few years since, I cut a pine tree, out of which I took two hundred and thirteen lbs. of honey, weighed in the comb. The same season, I took ninety lbs. of strained honey out of a hemlock; besides several others of thirty or forty lbs. each. From forty to sixty lbs. is considered a fair yield.

N. Almond N. Y.

WM. HOWE.

DWARF PEAR TREES.

On the best treatment of Dwarf Pear Trees, which were set out a few years ago, and have been neglected.

The neglect which orchards receive after planting, in all parts of the country, is of various kinds; in fact, in many cases neglect is coincident with every act of the planter. Trees are purchased, very generally, without the least preparation having been previously made for their reception—even the site they are to occupy has never been considered; consequently, they are planted where it is most convenient for the time, which, frequently, is quite unadapted to the purpose.

A suitable soil having been selected for the orchard—and experience has proved that a good limestone or wheat soil is the most preferable, although the dwarf pear tree will adapt itself to a wide range—the next consideration, and of the first importance, is the drainage. How many who read these lines, that have planted orchards, can say they have not neglected them in this particular? How few orchards there are that would not be improved by thorough drainage! It must be insisted upon, and talked about, and line must be written upon line, and precept upon precept, until it shall be thoroughly comprehended and settled, as an elementary principle, that good drainage, in nearly all soils and for all crops, and especially for orchards, is a condition essential to economical production.

Deep plowing for orchards, is seldom attended to; and the trees are compelled to obtain their sustenance from a few inches of earth, at the surface, which, from a previous exhausting process of tillage, is unable to yield any but a minimum amount of plant food, while a few inches below lies a full store, locked up in the hard earth.

The want of proper pruning of trees, at the time of planting and afterwards, is one of the most common abuses.

The removal of trees, causes necessarily, to a greater or less extent, the injury and loss of part of the roots—which, with the check by moving, renders necessary the reduction of the branches so as to diminish the amount of leaf surface, and, consequently the evaporation—which, until the roots have regained their balance with the top, the tree is unable to bear.

Neglect of annually pruning dwarf pear trees, causes them to make long, weak and disproportionate branches; and often in this state, while quite young, they produce a heavy crop of fruit, altogether too much for their age—resulting in a permanent injury to the trees.

Grass and grain crops are often grown in orchards until the trees are starved to death. This is indeed one of the most common, as it is one of the most pernicious, of errors, and is to be met with in almost every neighborhood. Not only are old orchards seeded down, but this is often the next step after planting; and not unfrequently, even, the trees are planted in meadows, without any care being taken for them.

Various other forms of neglect which young trees receive might be mentioned—such as improper planting, want of manuring, inattention to insects, and many others, which it is not necessary to specify.

The best treatment for a neglected orchard of dwarf pear trees, must depend somewhat on the circumstances of the particular case. If the trees are much stunted, distorted or diseased, it would undoubtedly be the wise course to dig them up at once, and commit them to the brush-heap.

Should the orchard, however, have been neglected but a short time, and the trees appear to be comparatively healthy, look first to the drainage; if this is wanting or is insufficient, set to work until every inch of the soil is effectually drained—not with open ditches, to carry off surface water merely, but with good, substantial stone, or what is better, tile drains, from three to four feet deep. Then put in the plows one after the other, two or three, or by going two or three times in each furrow, with a strong team, and break up the soil at least eighteen inches deep; you need not be afraid of plowing at least within a few feet of the trees, for dwarf pear trees, in the condition we are assuming, will not have extended their roots far. How close, however, the plow may come, is to be determined by observation; the digging fork will do what is left by the plow. These operations being completed, let a good coat of well-rotted stable manure be spread upon the surface and lightly plowed in.

The pruning-knife is next called into requisition; but it is impossible to give any but the most general directions for its use in this case; the experienced hand would undoubtedly cut much closer than the novice. The form and habit of each tree must be considered—the weak and ill-shaped must be pruned close and severely, while the stronger may be formed into good shape, and allowed to carry more wood.

The cropping of the orchard ground should be confined to beans, peas, and such other crops as draw lightly on the soil, or be entirely dispensed with—in which case the ground should be cultivated regularly every two or three weeks during

the summer season. Too much labor or care can scarcely be expended on a fruit which is so generous and grateful for favors, and whose pecuniary value is so great. *

BEST METHOD OF RENOVATING OLD ORCHARDS.

AN orchard that has been rightly managed and is termed *old* from age of trees, might better be replaced by young ones; but there are many orchards that have the appearance of age—a consequence arising from mismanagement; such trees can be renovated. Often, there are trees in the same plot, and side by side—the one healthy and strong, the other its opposite. On examination, we find a sad bruise, of the plow or otherwise, in cultivating; just above the ground a perfect nest of grubs; a thousand and one ant-hills, and many other sources of decay. Ask the owner why his trees look so yellow, or the fruit so knotty, and he tells you he knows not—merely because he has not examined. A tree that is not worth *some* attention, soon will show it is not worth picking. There are many methods of renewing a tree or trees, causing them to produce, and even bring lite and vigor anew to a tree in rapid decay. I remember one tree in father's orchard, that was *grubbed* full two-thirds around; a boy's weight in the top would sway it to and fro as he willed. We grafted it to *Baldwins*, and in four years after it was, and still is, as firm, as productive and healthy, as any tree. This may be an isolated case, but I believe grafting a great benefit.

My method of renovation would be to plow the ground—not so deep as to cut too many fibrous roots, nor so near as to bruise the body. Then, with a grub-hoe clean away everything from the body, and examine minutely for worms, and *kill every one*; manuring heavy with good materials; trim thoroughly all decaying and unsightly branches; graft, if necessary. Continue this course for two or three seasons, and the moss will have no place to cling. You can point a tree grub-eaten, or grass-bound, by the appearance of its leaves—yellow and small. Hogs are profitable laborers in an orchard (except in wet weather); they will destroy myriads of unborn pests—all fruits that fall prematurely are full of them. Every orchard should be the range of the hog, and no other animal, in my opinion. An orchard is far better to be cultivated, cropped or not. I am aware of advocates for non-cultivation; I can not make it pay.

We seeded with *Timothy*, and it laid three years. The third year's produce was yellow leaves and wormy fruit. I would not seed with anything but clover, if at all, and let it lie but a year or two at most. Spare your trees if possible; it is often easier to save a tree than grow one. Save what you have, and plant more; others planted for you—serve them likewise.

Frequent stirring the soil—liberal use of *good* manures—obtaining the choicest varieties—frequent use of the saw (not your axe,) and knife—great care in gathering, as to time, manner and storing—and your long winter evenings will have one guest in constant attendance; the basket of fruit is ever there, a temptation not to be resisted by any, even your most obliging reader of the *Genesee Farmer*,

APPLE TREES AROUND THE FARM.

"If apple trees are set around a farm, instead of in a compact body, would they not be more productive, on account of air, light, heat, etc.? Would the plan of setting around the farm, everything being equal, be advisable?"

The advantages of setting apple trees around a farm, instead of in a compact body, I think, would be more than counteracted by several disadvantages. If it were shown that trees, placed at proper intervals, in a compact form, lack air, light and heat, there are other conditions which seem to be important: such as protection, soil and exposure, which would have to be sacrificed considerably for the other advantages.

1st. The site for an orchard is of considerable importance, not only as a matter of convenience, but for the health and productiveness of the trees. If air is considered an important thing, give them an elevated position. In this way, I think, all the benefits of a free circulation of air might be gained. But I do not remember having heard that urged as a main cause of unfruitfulness; except, perhaps, in case of late spring frosts. Then, an elevated position affords all the chances of success that could be derived from setting around a farm. About the same may be said of *light* and *heat*. Trees may be so near together, with heavy tops, as to shade each other a portion of the day; but at suitable distances, the slight shading could hardly be thought injurious. If so, the trees on the outer edge of an orchard ought, always, to bear the best crops, which, I believe, has not been generally observed. The heat of summer is required only in moderation to perfect apples; and a temperate climate is better adapted for the purpose than one of greater heat; and in the dry, hot summers which we often have, there could be no advantage in having our trees set in the hard borders of the farm, especially along the highways, their leaves being fanned by clouds of dust. But, on the contrary, *mildness* is requisite to success, and the slight protection which trees give to each other is believed to be beneficial.

"Would the plan of setting trees around the farm, everything being equal, be advisable?" Now, it is pretty generally allowed that *nearly* all things are *unequal*; and it would be rather difficult to make the two conditions of setting trees equal in all things. If they were, there would be no chance for argument, or choice in the two modes. The choice being in the difference of conditions, we will proceed to examine them.

The border of the farm would be wholly unsuitable for apple trees until they were at least ten years old, unless fenced and cultivated completely on both sides of the row of trees. It is well known that small trees will do nothing but die, when set in grass-land, and but rather poorly among small grain—as wheat and oats. Then, if the farm was divided into pasture, meadow, and for various kinds of grain, there would be no use in setting apple trees in such a place. The border of the farm, along the cultivated fields, is generally waste land, to turn around on in plowing and cultivating; and small trees would not only be in the way, but would be in the hardest ground, and most unsuitable on the farm. Any farmer planting trees in such places, should look for fruit in very small quantities, and after long vigils. Then, trees

in the border would be more exposed to winds, and would be more likely to be blown down; and also to be killed by the severe cold or changeable weather of winter, and be less convenient every way, except for apple-*thieves*.

An orchard should be on high, rolling ground, or on ground well drained; and then it should be well cultivated, till the trees are well rooted and growing thriftily.

E. G. NYE.

Galesburg, Ills.

BEST FRUIT FOR MARKET PURPOSES.

"What are the best six varieties of pears, most valuable for the market, or general cultivation; also, six varieties of apples for like purpose; naming the varieties of pear and apple in the order in which they should stand for their respective merit; and which varieties of the pear enumerated are the best adapted for the pear, and which for the quince root?"

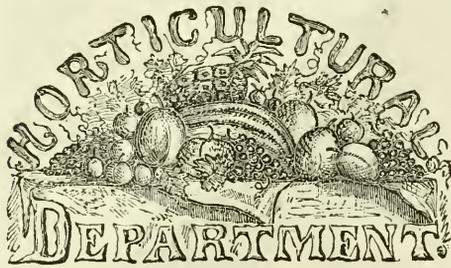
AFTER hearing and reading all that has been said and written on this subject for the last ten years, and carefully noting the experience of producers and dealers as to the demand of the markets and consumers, but little hesitation need be felt in naming the best six varieties of pears and apples, for market. As to the order in which they should be named for their respective merit, a good deal of difference will undoubtedly be found expressed. For general marketing and cultivation, I think the pears should be named as follows: *Bartlett*, *White Doyenne* (or *Virgalieu*), *Louise Bonne de Jersey*, *Duchesse d'Angouleme*, *Vicar of Winkfield*, and *Easter Beurre*. Perhaps the *Seckel* might be substituted for one of the last two; but as these are the only winter pears they had better be retained, as the market demand must be supplied in winter, as well as in summer. The demand for the above varieties is always greater than the supply, even at the highest prices.

The *Bartlett*, *White Doyenne*, and *Vicar of Winkfield* succeed well on either pear or quince root, while the other three are best on the quince; indeed, *Louise Bonne de Jersey* and *Easter Beurre* are comparatively worthless on the pear.

In naming the apples, I have no hesitation, as the market demands are uniform. The list is heard in every stall in every city market, at the season when the fruit is in market: *Rhode Island Greening*, *Esopus Spitzenburgh*, *Baldwin*, *Newtown Pippin*, *Roxbury Russet*, and *Red Astrachan*. If the fruit is to be produced in Western New York, the *Northern Spy* must be substituted for the *Newtown Pippin*. This last apple will always bring a good price; but, unfortunately, it is not universally successful, neither is the *Northern Spy*; but I believe it to be a fact that one of these will grow where the other will not. The *Lady* apple (*Pomme d'Api Rouge*) brings the highest price of any apple in the market, but it is so small that an orchard of that variety will not give so great a cash return for the labor and money invested as the other varieties I have named. Of course, this list may not be right ten years hence, as some of the new varieties which now promise so well, may supplant some of the above kinds. I have yet to see the variety that will drive the *Rhode Island Greening* from the market. This apple always sells well, and so does the *Spitzenburgh*.

D. A. A. NICHOLS.

Westfield, N. Y.



FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

This capital Society held its fifth annual session on the 4th and 5th of January, at the Court House in Rochester. The meeting was one of the largest yet assembled; and the show of apples and pears was one of the finest ever made at this season of the year. The officers were unanimously reelected as follows:

President—COL. B. HODGE, Buffalo.

Vice-Presidents—J. J. THOMAS, Macedon; WM. B. SMITH, Syracuse; W. R. COPPOCK, Buffalo.

Treasurer—W. P. TOWNSEND, Lockport.

Secretary—C. P. BISSELL, Rochester.

The crowded state of our columns will only permit us to give a very brief abstract of the discussions; but the Society will publish a full report of the proceedings, with the President's address, etc., which any person can obtain by enclosing a stamp to the Secretary. The discussions commenced with the question:

"IS THE DWARF PEAR A HUMBAG?"

Mr. PINNEY, of Monroe.—There is one sort which is not a humbug. The *Louise Bonne de Jersey* will bear as much fruit on same size of limbs as any other. Has dwarfs, two years old when set, and now eight years old, that are bearing one bushel, one and a half, and even two bushels of pears to the tree. If I set one hundred acres of pears, would set half of them dwarfs of the right sort.

Mr. TOWNSEND, of Niagara.—The *Louise Bonne de Jersey*, taken twenty-five years together, will bear three to one of any other sort I have cultivated as dwarfs. Were I to commence planting pear trees again, I would not plant a standard. Fruit on dwarfs is much larger than on standards; bears earlier. Needs good cultivation.

Mr. JAY, of Yates.—A fruit orchard should be a fruit garden, and that is where most men fail. Trees set in post-holes won't answer.

Mr. COPPOCK, of Erie.—Endorse all that the members have thus far said. *Vicar of Winkfield* succeeds very finely as a dwarf tree. Spading around trees is injurious: cuts off the fibrous roots which are near the surface.

Mr. ELLWANGER, was asked what varieties did not succeed well as dwarfs. Answered—*Beurre Bosc*, *Sheldon*, *Dix*, *Paradise d'Automne* and *Canadaigua*. On the other hand, *Belle Lucrative* is always poor as a standard, and fine as a dwarf.

Mr. BEADLE, of Canada.—*Belle Lucrative*, as a dwarf, is invariably fine and large.

Mr. FROST, of Monroe.—*Duchesse d'Angouleme* splendid as dwarf. Trees have, years before this, borne two or three bushels per tree, and this year three and a half bushels.

Mr. BROOKS, of Wyoming.—Don't think it is best to send dwarf pear trees out among farmers. Can't by any possibility induce a farmer to run a cultivator through his orchard once in two weeks; no, nor four weeks; no! nor once in two months.

Mr. SMITH.—The gentleman might as well advise not to sell Durham cattle to farmers because fine breeds need care, and fine breeds sometimes fail; yet, when cattle are well treated they do well, and when dwarf pear trees are well treated, they also do well.

Mr. BROOKS.—Farmers make some things prominent. Farmers will use stock well; but fruit trees are a little on one side. Some gentleman has advised that every farmer have dwarf pear trees in his garden—supposing that in the garden they would be well seen to. Now, what we in our country call a garden, is a place back of the house, where dish-water is thrown; where we have a few hills of potatoes, and several hundred—pig-weeds!

Mr. AINSWORTH, of Ontario.—Some time ago, I made remarks against dwarf pears. Have made observations since then, and find that some sorts do remarkably well as dwarfs—better than as standards, both as regards size and flavor of the fruit. *Louise Bonne de Jersey* will yield double the crop on same amount of space on dwarf than on standard; so will *Belle Lucrative*.

The whole secret of raising dwarfs is in the cultivation and pruning. Get the right sorts, and then cultivate and prune thoroughly.

In answer to a question as to profit, Mr. ELLWANGER said, that you could cultivate one thousand dwarf pear trees per acre, and if of the right kinds, they will average over a bushel per tree.

Mr. BARRY.—A great feature in dwarf pears is the earliness of bearing. Aged people could plant trees and enjoy the fruit. Easily transplanted, and liable to no more accidents or diseases than the standards.

BEST PROTECTIVE OF FRUIT TREES, ETC.

J. J. THOMAS.—In parts of the country where the winds are high, great benefit is derived from belts of timber, evergreen hedges, etc.

Mr. BARRY.—Our prevailing high winds are from the west, and fruit needs protection in the fall to keep it from being blown off; and the trees need it in winter and spring. As to underdraining, remember that the trees stand all the year round, and in almost any land underdraining will do good. There are plenty of evergreens that will grow three to four feet each year.

Mr. LANGWORTHY thought that board fences, twelve feet high, would be beneficial, and also serve to train grape vines upon.

Mr. BEADLE.—In Canada, farmers are beginning to plant trees on the west sides of their farms. Wheat crop is better for them.

Mr. AINSWORTH.—Ground sloping towards the east, good crops and seldom killed; but sloping to west, wind strikes hard—snow blown off—poor crops. Here is protection, and the contrary.

GRAPES.

Mr. LANGWORTHY spoke of the crops of *Isabellas* which have left Western New York for the eastern markets; and speaking of some of the new varieties, asked if we could not graft on good, substantial branches upon old vines, and get them to bear the first or second year?

Mr. C. P. BISSELL.—Grafting branches upon old vines during the full flow of sap is a difficult operation; but the old practice called inarching, is a safe way of performing the operation, while the vine of the new variety only loses a bud or two, and is in no way injured.

Mr. HOAG, of Niagara, thought pot plants were as good to buy as layers. In spring of 1856, bought twelve slender *Dianas*, which in 1858 bore forty clusters, and 1859 as many more. Set out *Delawares* in spring of 1858, and they did as finely as layers ever could.

Mr. ELLWANGER.—Has grafted the *Diana* in the open ground as well as the apple, just after the plants have made a fair start in the spring; graft upon a level with the surface of the soil. Heap the soil around, covering all but one bud with earth, and they always succeed.

Mr. AINSWORTH.—Plants from pots have one great advantage over those dug from the ground—that is, all the roots are saved, every fibre, and the plant has no new roots to make—nothing to do but grow. Planted *Delawares* the spring of 1859 from pots, and they grew fifteen feet.

Mr. BISSELL.—In spring of 1859, after sales were over, had over seven hundred *Diana* grape vines left standing in pots. Turned them all out into the nursery rows without losing one single plant, and some of those vines bore fruit that summer.

Mr. MAXWELL.—Had rather have good one-year old plants in pots than stout layers, as layers are usually taken up. Layers have not one-tenth as much root as pot plants—fine, fibrous roots.

Mr. LANGWORTHY.—Wait until the sap has run pretty well in spring, and it is not so very difficult to graft, and have the scion bear in two years. The first *Clinton* Grape that came to this county I grafted in that way.

Mr. PECK, of Ontario.—Strongly approve of covering even *Isabella* vines with a little earth each winter. A neighbor, who had one thousand vines set in 1856, and sheltered by woods on west and north, got three thousand lbs. for the crop of 1859.

Mr. BEADLE.—Had tried experiments with parallel rows in the vineyard. Those lightly covered with earth were twenty per cent. better crop than those merely laid down, and far better than those left tied up. Plants four feet apart in the row, and rows eight feet apart, and averages fifteen pounds of grapes per vine.

Mr. AINSWORTH.—Neighbors all think it pays to lay down the vines and cover with earth. Should practice pruning on the renewal system.

Mr. BARRY.—Had some vines growing on the end of his house, eastern exposure—*Delaware*, growth remarkably vigorous: fifteen to eighteen feet per vine.

Mr. H. B. MINER.—Never had a ripe *Isabella* or *Catawba* on an open trellis. On south or east side of house both get ripe. *Diana* will ripen finely with me on an open trellis.

Mr. HOAG.—A neighbor ripened his fruit at Lockport, and sold eleven hundred lbs. for twenty-two cents per lb. If you want a vine to grow and bear well, you must prune thoroughly.

Here a member opposed the severe pruning, and told about a vine which had been let grow without pruning; one year the frost killed it back to a mere stump, whence it sent up some very thrifty branches, which were not pruned at all, and bore 2500 bunches of grapes.

Mr. THOMAS thought that the gentleman's argument against pruning was the strongest one in its favor he had ever heard. What caused the very thrifty growth and the large crop of fruit? It was the severe pruning which the frost gave to the vine, and all the vine wanted now was another frost.

Mr. BROOKS appealed to farmers to attend more to the culture of the grape; wished the cultivation of all fruit might be extended, and even of—(hesitating,) dwarf pears. (Great laughter.)

COMPARATIVE MERITS, ETC.

Mr. BROOKS.—The time will come when every man—when every holder of land—shall be considered disgraced, if he does not supply his family with such luxuries as we see here before us (waving his hand to the seven long tables loaded with pears and apples), and they are the greatest under heaven.

Mr. BARRY.—Near market, small fruits are most profitable. At a distance, where fruit must be barreled, apples and pears are better. In Niagara county, the estimated value of the apple crop of 1859 was \$500,000. Just think of pears, in New York, selling at \$18 and \$20 per barrel. To skillful cultivators, with good soil, all things considered, the pear offers the greatest inducements. The pear crop is uniformly more certain than the apple, and there is hardly a farm crop as sure as the apple. Potato? let the rot answer. Wheat? it has almost been driven from Western New York. Corn? Oats?

If a pear tree or two dies, just fill up the rows from a reserve which every farmer should have on hand, in a little nursery of his own.

Mr. TOWNSEND.—Western New York will become the home of the pear in the United States, and here it is raised in perfection. Would not recommend a man to plant trees unless he meant to take care of them.

Mr. W. B. SMITH.—Years ago, pears would only bring seventy-five cents or one dollar per bushel. Now, the public taste has been educated to fine fruit, and the same will bring four dollars per bushel. Would not care to plant any but dwarfs.

Mr. HODGE.—The fact is, that half the people of the United States never yet saw a good pear. Now they see and taste such fruit as loads these tables before us, and they are willing to pay for it. Such fruit as we here see can be raised by any one who will cultivate properly and carefully.

Mr. BROOKS spoke of three *Baldwin* apple trees which each year bore six to eight barrels of apples, selling at three dollars per barrel. Each tree yielded a greater net profit than the average acre of land in Wyoming county. If market is glutted, give them to the horses—to the cattle—to the hogs—to the hens; there is nothing that lives, or ought to live, will refuse a good apple.

Mr. AINSWORTH.—The net profits of apple crop will average five times as much per year as a wheat crop. Pears bear regularly every year. You can set one hundred and sixty standard pear trees to the acre, and only forty apple trees. Standards bear as early as apples, and bring four dollars per bushel, while apples only bring about one dollar. Certainly, the pear crop, at present prices and prospect of prices, is six to eight times as profitable per acre as the apple. The great secret of success is good tillage and proper pruning.

Mr. BARRY.—It was folly to suppose that all the land in Western New York was going to be devoted to pear culture. Pears need suitable soil and skilful culture. Not a farm in Western New York of which half was adapted to pear culture. Pear culture will not start up as if by magic; but farmers will one by one go into it as fast as they get the requisite information.

WHAT IS THE BEST MANNER OF PREPARING GROUND FOR ORCHARDS?

Mr. SMITH.—1st. Thorough underdraining, especially if strong soil.

2d. Sub-soil at least twenty inches deep.

3d. Make it rich enough to be suitable for corn.

Mr. YEOMANS.—Underdraining is one of the best investments which a man can make before planting his orchard. Before you plant the trees, cut off all the branches. The tree will form new and strong branches, and the wind meanwhile will sway it less. Apples should be pruned so as to leave no branches lower than five feet from the ground.

Mr. FISH spoke of planting an orchard; part of the trees he cut off the whole top eighteen inches above ground, and the rest only cut off part of the top. Those from which he cut off the entire top made the most rapid growth and the handsomest trees altogether.

Mr. PECK had tried all the ways of pruning, but never saw trees as fine as Mr. YEOMANS'; fancied Mr. YEOMANS' five feet pruning better than any other plan.

Mr. LANGWORTHY strongly advised against plowing in an orchard. Never plowed among trees but he heard the roots crack. Nothing heavier than a cultivator should be used in stirring the ground.

WHAT IS THE MOST SUITABLE AGE FOR PLANTING FRUIT TREES?

Mr. HODGE.—Peach trees should not be more than one year from the bud, and then the borer is not brought with the trees.

Cherry trees, two years from bud, and four to six feet high.

Dwarf pear, two years from bud. Standard pear, four to six feet high.

Apple, three or four years from graft; about six feet high—not to exceed seven feet high.

Mr. GLEX, of the firm of H. E. HOOKER & Co., was loudly called for, and agreed with Mr. HODGE. With small trees we get all the spongioles—all the fibres—all the small roots, which really do the nourishing of the tree.

We have not given anything like a full report of the very interesting remarks of the gentlemen, nor have our limits permitted us to even mention all the subjects discussed.

A Committee reported appropriate preamble and resolutions relative to the recent death of DAVID THOMAS, the distinguished horticulturist, the eminent botanist, and the Christian gentleman.

The thanks of the Society were voted to the officers for their gratuitous services, and to the exhibitors of fruits—who, by showing about sixty sorts of pears, and over sixty varieties of apples, on our tables, shared with us their experience, and encouraged all in the good work.

The next meeting of the Society will be held at Buffalo.

INJURY TO APPLE TREES AT THE WEST.

EDS. GENESEE FARMER:—I noticed in the September No. of the *Genesee Farmer*, for 1859, a communication from ABRAHAM BAER, JR., of Pipestown, Berrien Co., Michigan, on the destruction of apple trees in Ohio and Indiana. He observes that, as far as he had traveled in those States, orchards were on the decline, that many trees were already dead, and most of them were then in a diseased state; indeed, he saw but few healthy trees wherever he went. This is a melancholy fact; but he does not fully describe the disease by which the trees were being destroyed.

He states that the attack is always made on the southwest side of the tree. This is generally the case. A dead spot will appear near the ground, extending one-third, one-half, and even two-thirds of the way around the tree, and more or less up and down the body. The bark will finally come off, and one might suppose that it had been peeled or rubbed off. The tree may still live several years and bear fruit; even until the dead spot becomes sufficiently decayed to admit of its being broken by the wind. The branches are sometimes similarly affected.

Mr. BAER states "that bad culture, or no culture rather, has much to do with such cases." He must allow me to dissent from him here. I would, reluctantly however, advocate bad culture even of the apple tree, and even in the central part of northern Indiana, where, it is presumed, this mortality is the most alarming, as it is the opinion of many that the best cultivated trees—trees of the most excited, vigorous growth—are the most liable to this injury. Injury I must call it, for it is thought by some that it is produced by freezing; but this can not be effected until the tree has been partially invigorated, the sap started, and the bark loosened by the warm rays of the sun, which probably takes place in February or the fore part of March. If this idea is correct (and it appears plausible to me), it would probably suggest the preventive of placing a shade before them. I have, I think, preserved my trees to some extent by merely placing a board up by each one, and tying it to the body; but I am not fully satisfied on the subject, as I have not been persevering in the experiment. Some have proposed to wrap them with straw, or some other suitable substance. This would probably answer a good purpose, but I have not known of anything being done in the way of protection, save my own feeble efforts. I have heard the boys talk about

the sap-suckers, and tell how they kill the apple trees; but I agree with Mr. BAER, by saying that I deem it almost an absurdity to suppose that they commit these depredations. LORENZO DOUD.

Chili, Miami Co., Indiana, December, 1859.

We would suggest, as worthy of trial, white-washing the trunks of the trees, for the purpose of reflecting the rays of the sun. EDs.

GRAFTING GRAPE VINES.

EDs. GENESEE FARMER:—In view of the daily increasing interest felt in the culture of the grape vine, I beg leave to offer a few observations on grafting *Isabellas*, *Catawbas* or *Clintons*, with new and more valuable kinds.

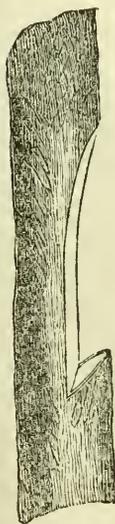


Fig. 1.
STOCK.



Fig. 2.
BUD.



Fig. 3.
BUD IN PLACE PREVIOUS
TO BEING WOUND.

Some cultivators have recommended inarching or grafting by approach, which has the advantage of being simple—consisting merely of shaving a little bark and wood from the stock to be grafted, and bringing a branch of another kind, after taking a little bark and wood from it, and fitting the two together. Tonguing is an improvement on this system. But I think most practical men will admit that it is imperfect at best; besides, very few people have the kind desired growing near the one to be grafted.

Again, some recommend cutting the vines down and cleft grafting them, which is done by splitting the stocks with a chisel, and inserting the scion in the form of a wedge. This answers well in some cases; but if the grafts should fail, you lose your crop of fruit entirely for that season.

What I propose to show is, that a person of limited skill can, if he possesses a large vine, graft half a dozen or more varieties on the same plant, or renew it entirely, as the case may be, without materially injuring the crop of fruit the same season. In the first place, select good sound wood of the

previous year's growth, of the kind desired, before the sap is in motion; lay them by in a cool, damp place, till you perceive the buds beginning to swell on the vine to be grafted. Then take one lb. of rosin, one-fourth lb. of tallow and one-fourth lb. of beeswax, and melt in an earthen or tin vessel; next take strips of strong factory, nearly an inch wide, for tying. This done, take your knife, which should be very sharp for the operation, and make a cut downwards about half an inch below the bud intended to be used, and half way through; next enter the blade of the knife half an inch above the bud, and bring it down back of the bud till it forms a junction with the first cut. [See engravings, Fig. 2.]

Then select a smooth place on the vine that you intend to operate upon, and adopt precisely the same plan on the stock as you have previously done on the scion, by removing a piece of bark and wood corresponding in size to the bud you intend to insert. Be careful not to cut out too large a piece at first, as you can easily enlarge the cut if found necessary. If the cut should be a little too wide for the bud, as is often the case, be careful to fit one side evenly, as the junction of the liber or inner bark of stock and scion is of the highest importance. Next take two strands of copper wire, of sufficient length to go around and fasten; place one around the lower extremity of the bud where the lip of the stock covers it, and secure it on the side opposite the bud; this done, secure the upper part of the bud in the same way. Then take a strip of the prepared factory, and dip into the composition, which should be about blood-heat, and wind the bud, taking care not to cover it, yet at the same time to render it perfectly air and water tight. To complete the job, dip the finger or a piece of rag in the composition, and fill up any spaces that may be left on the stem of the vine, either above or below the wrapping. It will be necessary to put another strand of wire around the vine, above the bud, to arrest the upward flow of the sap; or what is perhaps better, bend the vine over till the bud has started a few inches; when it has two or more leaves, it has become in a measure self-supporting, and the wrapping and wire can then be taken off, and the vine tied up in its place.

If the graft or grafts are thought of more consequence than the crop of fruit, the head or top of the vine can be reduced at intervals through the summer, as the grafts gain strength, which will help them very materially.

Of the success of this plan of grafting, I can speak in the fullest confidence. Scarcely one in fifty will fail if the above directions are faithfully carried out. If any grafts should fail, inserted in this way, it will be no detriment at all to the vine, which is one great advantage this plan has over cleft grafting. It is a surer way of grafting, because the tendency of the sap being to the upper branches, by this mode it can be checked and forced into this particular bud. This plan is very useful in vineries where the stems have become naked of fruiting spurs. By careful and good management, canes can be obtained in one season from twelve to twenty feet in length, and of proportionate strength.

FRANCIS A. BALLEE.



WHITE SPROUTING BROCCOLI.

WHITE SPROUTING BROCCOLI.

WHATEVER uncertainty may exist concerning the origin of domesticated animals, there is far less obscurity in the case of cultivated plants, the wild states of which, if not positively known, are at least ascertainable with great probability. We know that esculent Carrots come from the wild Carrot in a few generations, because that has been proved experimentally: and we also know, because experience teaches us, that the esculent quality once produced in a Carrot becomes fixed and capable of descent by inheritance. We also know that Nectarines have sprung from Peaches, because we see them appearing occasionally upon trees whose fruit is for the most part Peach. We know that some of the breeds of the garden Chrysanthemums must have come from the common old purple Chrysanthemum, because the first change that took place in England was from it to a buff color, from which by degrees many of the newer forms have been obtained in this country. And if we have not the same absolute certainty as regards other domesti-

cated plants, we are at least furnished with the means of reasoning fairly from the known to the unknown.

In no case has greater doubt been entertained than in what concerns the many races of Cabbages, whose habits have become so fixed, and descent by inheritance so perfect, that cultivators cannot believe that they have all come from one common stock, in the lapse of time, and that stock the wild Cabbage that springs up hard, bitter, and uncatable, on the coast of Devonshire and Cornwall. Nor can it be denied that a good deal of experience in the mutation of form is necessary to produce the conviction that Savoys, Coleworts, and Cauliflowers, are descendants of some common parent. No one has seen the wild Cabbage close its leaves and form its solid heart; still less have its straggling flowering branches been seen to become soft, stunted, and blended together into the granular, delicate ball, called a Broccoli or Cauliflower. But although such positive evidence has not been acquired, yet it happens that every now and then a piece of presumptive evidence is obtained, which

is little less important than the most direct. Of this kind an example is before us.

A few years ago, among a crop of white Broccoli, believed to have been the sort called Snow's White, a very valuable, firm, single-headed race, there appeared an individual with a branching stem and a multitude of lateral sprouts, each producing a Broccoli in its own center, as well as the usual one at top of the stem. It was a true branching Broccoli, of the same class as the purple branching, which has of late obtained so high a reputation, but is of better quality, and white. So remarkable a plant could not be overlooked; seed of it was saved and sown: the seedlings were like the parent; more seed was saved, and the seedlings still came true. For four successive years has this been done, and the annexed representation of an individual of the present season, and therefore of the fourth generation, engraved from a photograph, will show what the new race has become.

Its quality is, we understand, unexceptionable; its importance as a cropper is manifest, and experience has shown that its habit is fixed. To gardeners it therefore promises to become a treasure.

But this white sprouting Broccoli has an interest of another kind, showing as it does a plain tendency to assume a form that connects the Broccoli with the wild Cabbage. The nearest approach among cultivated Cabbages to the wild form is to be found in the Thousand-headed and the Colewort, with their allies. What is called Cottager's Kale is evidently the same thing with a more vigorous and productive constitution. Then Brussels Sprouts are merely Kale with the lateral shoots turned in after the manner of Cabbages. In the example before us, we have a Brussels Sprout with all the end shoots and all the laterals forming Broccoli. This teaches us that the wild Cabbage has a natural tendency to form solid hearts, like Cabbages, and stunted succulent flowering branches, like Cauliflowers, and that all the forms of Cabbage known to us are the result of a more or less complex manifestation of those tendencies. This may be stated as follows:

1. *All the buds active and open. Flowers loose and perfect.* The wild Cabbage, Kale, etc.
2. *All the buds active and closed. Flowers loose and perfect.* Brussels Sprouts, etc.
3. *The terminal bud alone active and closed. Flowers loose and perfect.* Cabbages, Savoys, etc.
4. *The terminal bud alone active and open. Flowers abortive, in succulent heads.* Broccoli and Cauliflower.
5. *All the buds active and open. Flowers abortive in succulent heads.* Sprouting Broccoli.

Hence it follows that Brussels Sprouts are 1 with the peculiarity of 2, and that in the case before us we have a race with the tendencies of 1 and 4 combined. Of the causes that may have originally led to the appearance of these peculiarities we are profoundly ignorant. Nothing, however, more strongly than this Broccoli, supports Mr. DARWIN's views of the inheritance of peculiarities. "The laws governing inheritance," says this able naturalist, "are quite unknown. No one can say why the same peculiarity in different individuals of the

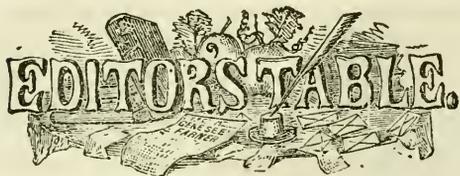
same species, and in individuals of different species, is sometimes inherited and sometimes not so." "But the number and diversity of inheritable deviations of structure, both those of slight and those of considerable physiological importance, is endless." Probably the case before us adds another to the instances known to the learned author of the *Origin of Species*.—*London Gardener's Chronicle*.



THE FUCHSIA, OR LADIES' EAR DROP.

With most people, this is a favorite plant; and, when fashioned as in the above cut, we venture to say will lose none of its attractions. The mode of propagating and training is well understood. In the fall, take cuttings from the old plants, previous to throwing them away, and plant them into well drained, small sized pots filled with sand and loam—filling a pot of a sort, and place them in a close frame until rooted, when they should be potted off separately into No. 1 pots, and kept in that size pot until side shoots make their appearance, when they may be shifted into a size larger pot, with loose, rich earth—rich it must be, as the object is to have a very strong and rapid growth. They must be frequently shifted into larger pots until the eleven-inch size is attained, when that ought to suffice for a plant of any reasonable proportions. The side branches to be pinched again and again, until we have a compact, bushy plant, when they may be suffered to grow and flower at random.

JAMES CRAIB.



New Advertisements this Month.

The Rural Annual for 1860—Joseph Harris, Rochester, N. Y.
 The Horticulturist—C. M. Saxton, Barker & Co., New York.
 Hungarian Grape Slips—John Kolber, New York.
 Descriptive Catalogue—J. M. Thorburn & Co., New York.
 The Phrenological Journal—Fowler and Wells, New York.
 Family Pictorial—Marie Louise Hankins & Co., New York.
 Life Illustrated—Fowler and Wells, New York.
 The Magazine of Horticulture—Hovey & Co., Boston, Mass.
 Flower Seeds for the Million—J. M. Thorburn & Co., New York.
 Grape Vines—C. P. Bissell & Salter, Rochester, N. Y.
 Seeds at Wholesale—J. M. Thorburn & Co., New York.
 Poultry for Sale—Sherman Smith, Darien Depot Office, Conn.
 Important to Farmers—Israel Forman, Grafton, Va.
 Apple Stocks for Sale—Chas. Moulson, Rochester, N. Y.
 Lithographs and Colored Fruit Plates—Thomas, Wright, Syracuse, N. Y.
 The People's Mill—R. L. Howard, Buffalo, N. Y.
 Cranberry Culture—Paul Chilson, Bellingham, Mass.

APRIL CASH PRIZES.—On the last page of this number will be found our List of Cash Premiums for the greatest number of subscribers sent in between the 15th of January and the 15th of April. There are twenty-one prizes, amounting to \$235.

Last year we offered twenty prizes, amounting to \$211. These prizes were taken by clubs of 23, 24, 25, 26, 29, 30, 34, 36, 43, 46, 53, 54, 55, 65, 70, 73, 74, 95, 123, and 141.

We mention this that our friends may have some idea as to how large a club will take a Premium.

We keep a careful account of all subscriptions sent in, and the Prizes will be awarded to the twenty-one persons who send in the largest lists between the 15th of January and the 15th of April.

There is not one of our agents who can not take one of the highest of these Prizes. All that is needed is a little personal effort. *Now is the time to commence.*

GREAT SUCCESS OF THE GENESEE FARMER.—Thanks to our numerous friends who have acted as agents in obtaining subscribers, the prospects of the *Genesee Farmer* were never so bright and flattering as at present.

We give below the amount received for subscriptions up to the 17th of January in each of the following years:

1858.	1859.	1860.
\$1,514 01.	\$2,246 64.	\$4,009 63.

In view of these facts, we would desire to express our thanks to our friends for their disinterested efforts in our behalf. It shall be our aim to merit a continuance of their favors.

We shall spare no expense in making the *Farmer* worthy of their patronage. We can not fully compensate our agents—theirs is a labor of love—but we shall continue to offer Cash Premiums, although so few compete for them that it is rather discouraging. The April Cash Premiums are larger and more numerous than last year, and we hope our agents and readers generally will compete for them. (See last page of this number.)

NOTES ON THE WEATHER FROM DECEMBER 10TH TO JANUARY 16TH AND RESULTS.—The first half of December was cold, giving the average heat 25.1°, or 6° below the mean of this half for 22 years.

The last half had the average 20.4°, or 5.1° below the mean. The whole month was 22.7°, or 5.5° below the mean. It was the coldest December since 1833, and as cold as that.

Only in four Decembers in 22 years, viz., in 1850, 1851, 1854 and 1856, was the cold down to zero, and only in one of those was it as low as on Dec. 29th, 1859, even 6° below. The previous day was very cold, and its average 3°.

The warmest December was 34.4°, in 1848.

Good sleighing began on the 9th and continued to the end of the year, on a hard frozen bottom, and a vast amount of business was done. Dec. 31st was a cold day, only 3° above zero. The cold was wide over the country.

The mean heat of the year was, at our house, 47.3°, which is the mean also of the 22 preceding years.

The quantity of water fallen in the year is 31.3 inches, while in 1858 it was 35.9 inches. The average water for the 22 years preceding is 32.19 inches. The water fell very unequally in the months. The following table gives the quantity in each month in 1859, and then the average monthly water for 22 years.

Months.	Jan'y.	Feb'y.	March.	April.	May.	June.
1859.	1.37	1.07	2.49	4.03	1.35	1.17
Mean.	2.05	1.95	1.93	2.32	3.03	3.27
July.	August.	Sept.	October.	Nov.	Dec.	Year.
4.6	5.14	2.83	1.21	1.91	4.62	31.30
3.17	2.60	3.29	3.19	2.83	2.53	32.19

Frost occurred in every month in 1859, and was injurious in June; but the crops recovered from it, or the damage was less than had been supposed. Crops generally fine and large. Peaches, none over this section, but apples and other fruit most abundant.

It is hoped the wheat-head midge was destroyed by the frosts of June, as the destructive animal had then appeared, but soon disappeared, leaving little evidence of its presence after the frost. Should this prove true, a great blessing attended the frost, which can not be estimated by many tens of thousands of dollars in Western New York alone.

THE WEATHER IN MISSISSIPPI.—G. W. GILL, of Chulahoma, Marshall Co., Miss., writes us Dec. 24, 1859: "The winter so far has been the coldest we have experienced in this section for many years; and up to this date, there is no cessation of "freezes"—cabbages all killed—great difficulty to save sweet potatoes, of which we have made an abundant crop. I would be pleased to send you about ten potatoes from my crop as a sample of their growth in the South-west. I sent twenty-two sweet potatoes to Virginia this fall, which weighed seventy pounds. Our cotton crop will be a large one—for which we are getting good prices. Corn is scarce, and in demand. Meat is worth from seven to eight cents, and in demand. We have lost "lots of hogs" by cholera."

A TWENTY-FIVE CENT PREMIUM TO EVERY SUBSCRIBER.—Every reader of the *Genesee Farmer* should have a copy of the *Rural Annual*. The price is only twenty five cents. But in clubs of eight we send the *Farmer* and *Annual* for fifty cents the two! In other words, you get the *Farmer* and *Annual*, for the price of the *Farmer* alone.

JANUARY PREMIUMS.—The January Premiums for the greatest number of subscribers sent in on or before the 15th day of January, have been taken as follows:

1. G. B. Whiteside, Brockport, N. Y., \$25 for 166 subs.
2. Capt'n G. Converse, Wilkesbarre, Pa., 20 " 157 "
3. J. Mackelean, Lancaster, C. W., 19 " 120 "
4. C. Howard, Hamilton, C. W., 18 " 118 "
5. Jonathan Miller, Berrysburg, Pa., 17 " 94 "
6. J. D. Palmer, Thurlow, C. W., 16 " 90 "
7. Chas. Cartwright, Johnstown, Pa., 15 " 82 "
8. B. W. Van Sise, Waterford, Pa., 14 " 78 "
9. D. E. Harris, Green Bay, Wis., 13 " 75 "
10. W. Hibbard, Manchester Station, Ct., 12 " 73 "
11. John Dorr, Scottsville, N. Y., 11 " 70 "
12. W. H. Scott, Ninevah, N. Y., 10 " 65 "
13. H. W. Moyer, Moyer's Corners, C. W., 9 " 63 "
14. R. W. Sawtell, Woodstock, C. W., 8 " 62 "
15. O. A. Paddock, Port Byron, N. Y., 7 " 60 "
16. Edwin Mallory, Fredericksburg, C. W., 6 " 59 "
17. Joshua Norrish, Eden Mills, C. W., 5 " 56 "
18. G. W. Reynolds, Bushville, N. Y., 4 " 54 "
19. Fisher Ames, Frontier, N. Y., 3 " 53 "
20. R. J. Smith, Hillsburg, C. W., 2 " 52 "
21. W. McClymonds, New Castle, Pa., 1 " 51 "

Our friends can draw on us at sight for the amount, or we will send it by mail or in any other way they may designate.

NOW IS THE TIME TO SUBSCRIBE.—Unlike a *News*-paper, the *Genesee Farmer* is none the worse for being a few weeks behind time. The January number is as fresh and useful now as when issued. The present is an excellent time to get subscribers. If you, kind reader, know of any of your neighbors who do not take an agricultural paper, show them a copy of the *Genesee Farmer*, and take and forward us their subscriptions. And even those who take other papers would not be injured by reading the *Farmer*. It is so cheap that all can afford to take it.

CHEAP READING.—One volume of the *Genesee Farmer* contains 384 pages, and the *Rural Annual* 120 pages. In clubs of eight, we furnish the two for half a dollar. *Five hundred and four pages for fifty cents!* What farmer need be without good reading for himself or his children? Any of our agents who have sent us a club of eight subscribers for the *Genesee Farmer*, can have eight copies of the *Rural Annual* for one dollar!

ADDITIONS CAN BE MADE TO CLUBS at any time, at the club rates. After you have got a club of eight subscribers, you can send on the names of one or more subscribers at 87½ cents each. If the members of the club have not had the *Rural Annual*, they can still have them at the club rates. In other words, we will send you eight copies of the *Annual* for one dollar.

THERE ARE MANY YOUNG MEN who could not do better than to act as agents for the *Genesee Farmer*. A few days spent in soliciting subscriptions among the neighbors would secure one of our largest Cash Premiums. All that is required is to show them a copy of the paper, and tell them its marvellously low price. *Now is the time to commence.* See list of Cash Prizes on the last page.

PEACH BUDS.—So far, we have ascertained by examination that the peach buds in this vicinity have escaped uninjured from the effects of frost, and although danger is not yet past, yet the chances are very good for a crop of peaches the ensuing season. We are sorry to learn that in Southern Ohio the reverse is the case. In Ross, Hocking, Vinton, and Warren counties, "the destruction is quite general in the low lands," and the full extent of the damage can not now be fully known.

A NEW USE FOR OUR SNOW-BILLS.—R. W. SAWTELL, Esq., of Woodstock, C. W., writes us as follows: "Your snow-bills are received; one is posted in a conspicuous place in the post-office, and the other on the wall of my sitting-room; and such is the attraction of the stars and stripes that my oldest child has learned nearly all her alphabet therefrom in two weeks. I have no doubt I shall be able to send you a large club for the *Genesee Farmer*, for the more it is read the better it is liked. The last volume is decidedly a progressionist, and approximating to perfection."

"HOW DO YOU APPOINT AGENTS FOR THE GENESEE FARMER?"—We have none but voluntary agents. We invite all our readers who like the *Farmer* and are desirous of increasing its circulation to act as agents for it. If there is no agent at your post-office, we should feel greatly obliged if you will take and forward the names of subscribers.

GIVE THE GENESEE FARMER A TRIAL.—MR. WILLIAM REYNOLDS, of Elora, C. W., sends us twenty subscribers to the *Farmer* and *Annual*, and says "The paper is highly approved of by all who can be persuaded to give it a year's trial."

THE press on our columns is so great this month that we have been compelled to leave out a number of illustrations, several prize essays and other communications, together with many inquiries, answers to correspondents, etc.

Inquiries and Answers.

DRAWING OUT MANURE IN WINTER.—I want you to tell us about hauling dung right from the stable on to prospective corn ground. Is it better to leave it in the barn-yard, exposed to the rains and evaporation of spring, to be hauled in April or May, as the ground may be fitting, or to put it on now and let the leach go into the land? I know you, as a scientific and able farmer, may say it should be kept under cover and composted; but that the generality of farmers can not or will not do.—CHARLES PALMER, Mansfield, Ohio.

Better draw it out during winter, while you have more leisure and the ground is frozen. Put it in small heaps, or, what we think would be better, spread it over, the land ready for plowing under. If the land is in clover, the manure will give it an early start, and clover and manure can be plowed under together just before planting.

PEAS ON NEW LAND.—I would like, for the benefit of myself and others, to know the best method of raising a crop of peas on newly cleared lands. 1st, best variety; 2d, how many to sow to the acre; 3d, whether plowing or dragging in is best; 4th, at what season should they be sown north of latitude 43°. Also, what reliable works on drainage, and sowing stock, are published, and where to be obtained. Perhaps some of your contributors can enlighten me.—E. T. CHEESEMAN, St. Louis, Gratiot Co., Mich., Dec., 7, 1859.

RABBITS GNAWING TREES.—(M. S. F., *Columbia, Tenn.*)
Boxing around each tree one or two feet high, or binding a piece of old tin around, we have heard of being a successful practice of defense against the gnawing of rabbits.

Earthing up each tree about two feet high, is also a common, and we believe generally, an effectual remedy.

A. II.—We can send you NORTON'S *Elements of Scientific Agriculture*, pre-paid by mail, for sixty cents.

MARKING SHEEP.—Please inform me through the *Farmer* how I can mark my sheep so as to know the cross and age of each one at sight. I have tried lettering them with indigo, after shearing, but find it washes off with the rain.
—J. S., *Laurel, Franklin Co., Ind.*

POTATOES.—Where did the following varieties of potatoes originate: Orange Pink-eye, English Whites, Leopards, Black Kidney, and Cow Horn? An answer would be thankfully received by W. H. H. PEARSONS, *St. Lawrence Co., N. Y.*

WHAT causes cattle to loose the cud, and what is the best remedy? Will Hungarian grass do well sown as early as April in this latitude?—E. B., *Trumbull Co., O.*

LIME FOR FRUIT TREES.—I would like to hear from those who have had experience, in regard to liming orchards.
—LEVI LEBOW, *Dauphin Co., Pa.*

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
ROCHESTER, N. Y., JAN. 20, 1860.

THERE is a degree of steadiness in the Flour and Grain markets at present, but there is also a want of activity. Speculative purchases have been made to a large extent during the last few weeks. These purchases have imparted an impulse to the trade, and contributed largely to sustain prices. The advance since our last issue, is from five to ten cents per barrel. Confidence in an early and large advance, is felt by many who, probably, think the market will take a course now, similar to the one it took last year. This may be the case, though it is not very likely. The stock is large. The current rates are above the limits of most orders for export, and buyers for the home trade are not willing to purchase more than is required for immediate use, without some abatement. Canadian Flour is not plenty, and the demand is good at full prices. The demand for Southern Flour is also good; but, with a large stock, the tendency of prices is downward.

Wheat is inactive. Shippers are mostly out of the market, and millers are unwilling to purchase more than a supply for present wants, except at lower rates. The few purchases for shipment may be regarded as made for special purposes, rather than as indicative of the foreign demand. The receipts have fallen off, but the stock is large. The demand for Rye is fair at improved rates. Barley and Oats are quiet and dull, with an ample supply. Corn is lower, but steady and firm, with a good demand, light receipts, and a moderate stock.

The English markets have been steady, and at the date of our last advices were tolerably firm. On the continent of Europe and in Northern Africa, the markets show a good degree of steadiness. A slight improvement is manifest in some instances, and a yielding tendency in others. The approaching European Congress will be regarded with interest, and much will depend on the result of its deliberations.

Regarding matters in the light of present and prospective supply and demand, we discover nothing to justify confidence in any important advance of a legitimate character. Bold and concerted action may influence prices, and govern the market for a time,—for the devices of the Corn Exchange bear a near resemblance to those which mark the operations of the Stock Board—but there is nothing in the present aspect of affairs to warrant, or sustain, much higher rates.

Provisions, generally, are unsettled, with a fair demand. Pork is dull and declining. Beef is steady, with light receipts, and a

fair demand. Bacon is dull and declining; the supply is fair. Cut meats are rather lower, with increased receipts. Dressed hogs are plenty, dull, and declining. Lard is dull, with more arriving, and a limited demand for the home and export trade. Butter and Cheese are steady and in good request.

The supply of Beef Cattle is equal to the demand, with the exception of first quality, which are scarce. The stock offered consists mainly of a coarse, unprofitable kind, and ill fed withal. If those who breed and feed cattle for market, would procure the best kind, and feed them in the best manner, they would soon find their own pecuniary interest promoted thereby.

The market for Wool is quiet, but firm; the stock of most kinds is small. A large sale took place recently in Boston, which was well attended, and much spirit was manifest on the part of buyers.

ROCHESTER MARKET.—Jan. 20.

FLOUR—Market steady, with but little doing. Superfine, \$4.75@5.25; extra, \$5.50@6.50. Buckwheat Flour \$1.75@2.20 per 100 lbs.

GRAIN—Wheat steady but inactive. White, \$1.35@1.40; red, \$1.15@1.20. Corn, 65c. Oats, 56c. Barley, 60c@62c. Rye, 70c@72c. Buckwheat, 45c@50c. White Beans, 75c@81c.

SEEDS—Clover, \$4.50. Timothy, \$2.25@2.50. Flax, \$1.25.

PROVISIONS—Mess Pork, \$17@18 per bbl. Hams—smoked, 10c. Shoulders do, 8c. Lard, 11c. Butter—fresh roll, 16c@17c; do. firkin, 15c@16c. Cheese, 8c@10c per lb. Eggs, 17c per dozen. Chickens, 7c per lb. Turkeys, 9c@10c per lb. Potatoes, 31c@40c. Beef, 4½c@5½c per lb. by the side. Mutton, 38c@50c by the carcass. Dressed Hogs \$6@6.50 per 100 lbs.

APPLES—31c@50c per bushel.

CATTLE MARKET—Beef cattle, \$3.50@4.50, live weight. Sheep, \$3@3.50 each. Calves, \$4@5 each.

HIDES—lambert, 5½c. Calf skins, 10c per lb. Sheep pelts, \$1.25@1.62½ each. Tallow, 8c per lb.

HAY—\$14@19 per ton.

NEW YORK MARKET.—Jan. 20.

FLOUR AND MEAL—The market is less active. State superfine, \$5.20@5.25; extra do, \$5.30@5.40; Western superfine, \$5.25@5.35; extra do, \$5.40@5.50. Ohio round hoop extra, \$5.70@5.85. Ohio, St. Louis and Genesee extras range from \$5.75 to \$7.25. Canadian Flour, \$5.70@7 for common to choice extra. Southern Flour is steady. Baltimore superfine, \$5.50@5.65; extra do, \$5.70@5.85. Brandywine, \$6@6.10. Georgetown, \$5.60@5.65. Petersburg City, \$6.30@6.37. Richmond City \$6.25@6.25. Gallego and Itaxall, \$8@8.25. Rye Flour dull at \$3.75@4.40 for tall and superfine. Corn meal inactive. Jersey, \$3.50@3.90. Brandywine, \$4.20. Puncheons, \$19.50.

GRAIN—Wheat in limited demand. White Southern, \$1.40@1.50; do Western, \$1.40@1.55. do Canada, \$1.37@1.45; red Southern, \$1.30@1.34; do do Western, \$1.30; Milwaukee and Canada club, \$1.22@1.25. Chicago spring, \$1.20. Rye steady at 90c@92c. Barley 75c@85c. Corn, 52c@82c for new white and yellow; 90c for old Southern yellow, and 92c for white do. Oats dull at 40c@43c for Jersey, Delaware, and Pennsylvania; 45c@46c for State, Western, and Canadian. Canadian Peas, 82c@90c. White Beans, \$1.10@1.25.

SEEDS—Clover, 8½c@9c per lb. Timothy, \$2.25 for mowed and \$2.75 for reaped per bushel. Flax, \$1.50@1.55 for rough American. Red top, \$2.50@2.62½ per five bushel bag.

PROVISIONS—Pork steady, but not very active; old Mess, \$16.25; new do, \$16.85@17.50; old Prime, \$11.50; new do, \$12. Beef is in fair demand and steady at \$5@5.25 for country mess, and \$4@4.25 for prime do; \$9@9.75 for reaped Western; \$10.50@11.50 for extra mess; India mess, \$22. Beef hams, \$14.75. Bacon quiet at 8½c@9c. Cut meats steady and in fair demand. Hams, 9c@9½c. Shoulders, 6½c@6½c. Green meats steady. Hams, 9c@9½c. Sides, 8c. Dressed hogs are in demand at 6½c@7c per lb. Lard is dull at 10½c@10½c. Butter is plenty—Ohio, 12c@11c; State, 13c@22c for fair to prime; Orange County 22c@23c. Cheese in fair demand at 9c@11c per lb. Potatoes—Mercers, best, \$1.62@1.75; common do, \$1.25@1.40; Peach-blooms, \$1@1.33; Dyckmans, \$1.38@1.50; Jones, Round Pink-eyes, Western Reds, and Jackson Whites, \$1.25@1.38 per bbl. Nova Scotia, 35c@40c per bu.

CATTLE MARKET—Beef cattle dull. First quality, 9c@10c. medium, 7c@8c; ordinary, 5c@7c; extra good, 10½c@11c per lb. Veal calves 6c@7c per lb. live weight. Sheep and Lamb \$25@27.50 per head. Corn fed Hogs, 5½c@5½c; still fed 5c@5½c per lb. gross.

WOOL—Domestic Fleeces, 40c@55c per lb. for the range of qualities.

PHILADELPHIA MARKET.—Jan. 19.

FLOUR AND MEAL—Market dull. The demand is chiefly from local trade, there being but little inquiry for shipment. Superfine, \$5.50@5.75; extra and fancy, \$6@6.75, as to quality Rye Flour dull at \$4.25. Corn Meal, quiet at \$3.75.

GRAIN—Wheat quiet with little offering. White, \$1.45@1.50 red, \$1.35@1.36. Rye steady at 92c@93c for Pennsylvania Corn firm at 76c@77c for new yellow. Oats firm at 45c@46c for Pennsylvania. Barley malt, 90c; Barley, 30c.

SEEDS—Clover, \$5.25@55.50, with but little prime offering Timothy and Flax steady and without change.

PROVISIONS—Mess Pork, \$17.50. Mess Beef, \$14@15 per bbl. Bacon inactive. Hams, 11½¢@12½¢. Sides 10¢; Shoulders, 8¢; Green Hams, 10¢@10½¢; Sides, 9¢; Shoulders, 7¢. Lard, 19¢@21¢ for blms., and 11½¢@12¢ for kegs. Butter dull at 14¢@17¢ for roll, and 10¢@12¢ for packed. Cheese steady at 10¢@11¢ per lb. Eggs dull at 20¢ per doz.

WHEAT—Market quiet with no change to notice. WOOL—Market very inactive. The stock is light, and holders are firm; but manufacturers are well supplied.

BUFFALO MARKET.—Jan. 19.

FLOUR—Market dull with but few transactions, except for reta l. State extra, \$1.90@55; Wisconsin extra, \$5.25; Ohio extra, \$5.75; Indiana and Ohio double extra, \$6@6.25.

GRAIN—Wheat market very quiet; scarcely any sales. Canada Club, \$1.65. Corn 68¢@70¢. Rye, 75¢@80¢. Barley, 65¢@68¢. Oats, 37¢@38¢. Peas, 64¢, but inactive.

SEEDS—Clover active at \$4.85½@50. Timothy, \$2.62@2.75. Flax, \$1.35.

PROVISIONS—Prime Mess Pork, \$16. Dressed Hogs, \$5.87½@5.20 per 100 lbs. Lard, 10½¢@10½¢. Hams, 10¢ for plain, and 11¢ for sugar cured. Shoulders, 7½¢. Beef hams, 9½¢. Butter, 16¢@17¢ per lb.

CHICAGO MARKET.—Jan. 18.

FLOUR—Market inactive at advanced rates. White winter extra, \$5.51@56; spring extra, \$4.84@5 for favorite brands. Eye Flour, \$5.75@54.25.

GRAIN—Wheat firm, at a slight advance. We quote red winter, \$1.19; No. 2 spring, 96¢@101; No. 1 do., \$1.01@1.02; Iowa club, \$1.02@1.03. Corn, 44¢@51¢, according to quality. Barley 60¢@2¢. Rye scarce at 78¢@80¢. Oats firm at 35¢@37¢.

SEEDS—Timothy, \$2@2.19. Clover, inquired for at \$1.50@1.59. Hungarian grass, 72¢@75¢.

PROVISIONS—Mess Pork quiet at \$15.25@15.50. Bulk meats active at 6½¢ for green sides; 5½¢@5½¢ for cured shoulders; 7½¢@7½¢ per lb. for green hams. Dressed Hogs \$4.60@5.00. Lard, 9½¢. Butter plenty at 14¢@15¢ for fresh, and 10¢ for firkin. Cheese unchanged. Eggs 15¢@16¢ per dozen. Potatoes 45¢@60¢ per bushel for Neshannock and Pinkneys.

FRUIT—Green Apples, \$2.50@3.10 per barrel. Cranberries, \$1.50 per bushel. Dried Peaches, 11½¢@12¢ for unpared, and 17¢@18¢ for pared. Dried Apples 1½¢ per lb.

CATTLE—Beef Cattle, \$2.25@3.00. Live Hogs, \$4.35@4.70 per cwt. gross.

HIDES—Green, 6½¢; green salted, 7¢; dry salted, 11¢@13¢; dry flint, 13½¢@14¢. 1 cts, 90¢@1.20. Tallow, 10¢ per lb.

HAY—Prairie, \$8@9 loose; Timothy baled, \$12 per ton. WOOL—Nothing doing.

CINCINNATI MARKET.—Jan. 18.

FLOUR—Heavy; superfine, \$5.30@5.40; extra, \$5.40@5.60. GRAIN—White Wheat, \$1.25@1.25; red, \$1.20@1.22. Corn dull, but rather higher, closing at 41¢@55. Rye in good demand at \$1. Barley unchanged at 63¢@68¢ for spring, and 73¢@75¢ for fall. Oats firm, but lower, at 45¢@49¢.

PROVISIONS—Mess Pork firm. Holders ask \$16.75@17—\$16.50 is offered for first class brands. Bulk meats held at 6½¢@8½¢—some sales at 6¢@8¢. Green hams, 7½¢@8¢. Bacon 7½¢@9¢. Lard rather lower, and held generally at 10¢. Butter dull and lower. Central Ohio, 13¢@15¢; Western Reserve, 16¢@17¢. Cheese active and shade higher, at 9½¢ for Western Reserve, and 11¢ for imitation English dairy. Eggs in good demand at 18¢ per dozen. Green Apples in moderate demand at \$2.25@3.25 from store. Potatoes dull at \$1.75, for prime, per barrel.

FRUIT—Dried Apples rather higher, at 6½¢@7¢. Dried Peaches, 10¢@12¢ per lb. Cranberries \$12.00@14.00 per barrel.

CATTLE AND HOGS—Beef Cattle in fair demand, prices varying from \$2 to \$3.50 per 100 lbs. gross. Sheep, \$2.00@2.50 per head. The supply of Hogs has fallen off, as the season is about closing, and the prices are almost nominal. They are quoted at \$6.00@6.50 per 100 lbs. net.

HIDES—Active. Flint, 12½¢@13¢; dry salted, 11½¢@12¢; green salted, 6½¢@7¢ per lb. Sheep pelts, 75¢@1.00 each. Tallow, 10¢@10½¢ per lb.

HAY—Active, and prices firm at advanced rates. Prime press-Timothy, \$24.00 per ton.

TORONTO MARKET.—Jan. 18.

FLOUR—Quiet, at \$4.60 for Superfine; \$4.90 for fancy, and \$5.25@55.50 for extra.

GRAIN—Wheat buoyant at \$1.18@1.25 for fall; \$1.00@1.05 for spring. Barley active at 60¢@65¢. Rye at quiet 70¢@75¢. Oats scarce at 27½¢@40¢. Peas in request at 56¢@61¢ per bushel.

PROVISIONS—Pork lower, but in demand at \$5.50@56.25 per 103 lbs. Fresh Butter, 18¢@20¢; tub brick at 15¢@16¢ per lb. Cheese, 10¢@12¢ per lb. for American. Eggs, 15¢@16¢ per dozen. Potatoes plenty at 30¢@35¢ per bushel.

POULTRY—Small demand. Turkeys, 50¢@75¢. Chickens, 25¢@30¢ each.

HAY—Large supplies by importation have lowered the market, and the range is from \$16 to \$23 per ton. Straw, \$9@10 per ton.

LIVERPOOL MARKET—Dec. 30.

FLOUR AND MEAL—Western canal Flour, \$5.04@55.23 for old, and \$5.76@6.24 for new; Philadelphia, Baltimore, and Ohio, \$5.76@6.48; Canadian, \$6.00@6.48; extra qualities, \$6.24@6.72; sour, \$4.80@5.23. Corn Meal, \$4.56@4.80.

GRAIN—American white wheat, \$1.51@1.66; red do. \$1.37@1.48; Canadian white, \$1.44@1.53; do. red, \$1.33@1.44. Indian corn—white, \$1.02@1.14; yellow, 93¢@96¢; mixed, 93¢@94¢. All per bush, of 60 lbs.

WOOL—Domestic fine, 12¢@38¢. Colonial, 14¢@72¢; German, Saxon, and Prussian, 40¢@1.08 per lb.

LONDON MARKET.—Jan. 2.

FLOUR—American sour, \$5.52@6.43; swe-4.—

GRAIN—Wheat—American white, \$1.29@1.47; do. red, \$1.26@1.41. Indian corn—white, 93¢@1.02; yellow, 90¢@96¢, per 60 lbs.

WOOL—Domestic fleece, 32¢@33¢; sorts, 30¢@48¢ per lb.

BRIGHTON CATTLE MARKET.—Jan. 19.

At market, 1200 Cows, 103 Stores, 2000 Sheep and Lambs, 150 Swine.

PRICES—Market Beef—Extra, \$9.00@10.00; First quality, \$7.00@7.50; Second, \$6.75; Third, \$6.50. Working Oxen—\$55@110. Milch Cows—\$30@40; common, \$17@18. Veal Calves—\$3.00@6.00. Yearlings—None. Two Years old—\$17@23. Three Years old—\$24@27. Hides—6¢@6½¢ per lb. Calf Skins—10¢@11¢ per lb. Tallow—7¢@7½¢. Sheep and Lambs—\$2.00@2.75; extra, \$3.00@3.70. Pelts—\$1.50@1.75. Swine—Fat Hogs, none. Pigs, 5¢; retail, 5¢@6½¢.

REMARKS.—Prices of Beef remain the same as last week. Sheep and Swine, not as many at market, but no variation in prices.

ADVERTISEMENTS.

A few short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 3000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

The Rural Annual

AND

HORTICULTURAL DIRECTORY, FOR 1860.

THE FIFTH VOLUME OF THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY is now published. It contains *One Hundred and Seven Illustrations*. It is unquestionably the handsomest work of the kind yet published in this country. It contains ONE HUNDRED AND TWENTY PAGES, abounding in useful and interesting information.

NO FARMER OR FRUIT GROWER SHOULD BE WITHOUT A COPY.

Among the Contents will be found Articles

- ON PLANTING AND MANAGEMENT OF FRUIT TREES.
- ON INSECTS INJURIOUS AND BENEFICIAL TO THE FARMER AND FRUIT GROWER—75 Illustrations.
- ON DWARF PEARS, APPLES, PLUMS, AND CHERRIES—Six Illustrations.
- ON THE CULTIVATION OF THE AMERICAN BLACK RASPBERRY—One Illustration.
- ON THE MANAGEMENT AND VARIETIES OF PIGEONS—Fourteen Illustrations.
- ON PLANTING EVERGREENS—Two Illustrations.
- ON ORNAMENTAL DECIDUOUS TREES—Seven Illus.
- ON THE DISEASES OF ANIMALS—REMEDIES, ETC.

The Illustrations have been obtained at great expense, and are superior to anything of the kind yet published in this country.

Let every one interested in the Culture of the Soil, or in the improvement of Rural Taste, send for a copy.

ONLY TWENTY-FIVE CENTS!

Sent pre-paid, by mail, to any address, on the receipt of the money in three cent postage stamps.

Address **JOSEPH HARRIS, ROCHESTER, N. Y.** Publisher of the *Genesee Farmer*. The bound volumes for 1856, 1857, 1858, and 1859, can be had at 25 cents each, postage paid.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

“A STITCH IN TIME SAVES NINE.”

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary maitage, being vastly more adhesive.

“USEFUL IN EVERY HOUSE.”

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by **HENRY C. SPALDING & CO.,**
48 Cedar Street, New York.

Address Post-Office, Box No. 8,600. Dec., 1859.—1y

THE PEOPLE'S MILL.

SANFORD'S PATENT

A FARM MILL, Portable, simple, compact, and made on an entirely new principle, with plates having a reciprocating and oscillating, instead of a rotary motion, with all the power applied within one inch of the center of the shaft, and one that has been fully tested and improved by two years' experience, is now offered to the public. Every Mill is tested, and not one is sent out unless it will grind a bushel of hard corn fine enough for stock feed in *eight minutes*; many kinds of grain it will grind much faster.

It is the **PREMIUM MILL** for the People, and obtained

THE SILVER MEDAL AT THE LATE EXHIBITION

at the American Institute in the city of New York.

The **PEOPLE'S MILL** can be put into any Saw-mill. The **PEOPLE'S MILL** is the cheapest Mill ever offered to the public. The **PEOPLE'S MILL** is the simplest Mill ever made. The **PEOPLE'S MILL** is the most durable in use.

The **PEOPLE'S MILL** has the most grinding surface of any portable mill.

The **PEOPLE'S MILL** requires less power than any other doing the same amount of work.

The **PEOPLE'S MILL** requires less speed than any other mill.

The **PEOPLE'S MILL** is adapted to any kind of power.

The **PEOPLE'S MILL** is not a rotary mill.

The **PEOPLE'S MILL** obviates all the objections to the cast iron rotary mill.

The **PEOPLE'S MILL** will grind all kinds of grain, coarse or fine, for feed.

The **PEOPLE'S MILL** will grind plaster, bones, salt, all kinds of grain, malt, peas, beans, spices, etc., etc.

The **PEOPLE'S MILL**, largest size, requires about two horse power. The **PEOPLE'S MILL** only requires about two hundred and fifty revolutions per minute.

The **PEOPLE'S MILL**, largest size, will grind from 150 to 200 bushels of grain in 24 hours.

The **PEOPLE'S MILL** may be renewed at the cost of the plates which will be furnished at 50 cents each.

The plates are made of hard iron, dressed or grooved on both sides, and the reciprocating motion keeps the grinders sharp. There is no *bolt* to it, which, we think, experience has proved of no use on portable mills. The common sieve is sufficient for all ordinary family purposes. Three sizes—

No. 1, A HAND-MILL, PRICE \$20, No. 2, \$30, No. 3, \$40.

LIBERAL DISCOUNT MADE TO DEALERS.

A mill may be seen in constant use at my shop; also at No. 17 Spruce St., New York, a few doors below the Tribune Building.

I will fill all orders for Belting at cost.

Address

R. L. HOWARD,

BUFFALO, N. Y.

I also manufacture the Improved Ketchum Grass and Grain Harvester. Feb'y—31

1860. AMERICAN STOCK JOURNAL. 1860.

The great success which has attended the publication of the First Volume of the **AMERICAN STOCK JOURNAL**, has induced the Proprietor to undertake several improvements for the Volume commencing January, 1861, and he now offers it to the public with the assurance that its present high character will be fully sustained, and no effort will be spared to render the paper an indispensable necessity to all interested in the Breeding and Management of our Domestic Animals.

The **VETERINARY DEPARTMENT** will be under the editorial direction of Doct. **GEO. H. DADD**, the distinguished Veterinary Surgeon, and the late Editor and Proprietor of the *American Veterinary Journal*.

Each number of the paper contains 32 large octavo pages, and is handsomely illustrated. It is published monthly at 25 PARK Row, New York. Terms, \$1 per year, *invariably in advance*, with a liberal discount to clubs.

Specimen copies gratis. Money may be sent at publisher's risk, in registered letters.

D. C. LINSLEY, Proprietor.

C. M. SAXTON, BARKER, & CO., AGENTS,
212 No. 25 Park Row, New York.

CRANBERRY CULTURE.—The subscriber has issued a Circular on the **CRANBERRY AND ITS CULTURE**, and will forward it free of charge, by mail, to those wishing it. He also has the plants for sale, for both High and Low lands, and will forward them in a fresh state, by Express, to all parts of the United States. Price, *Bell and Washington* varieties, \$5 per 1000, or \$20 per 5000 plants; *Barberry and Cherry* varieties, \$3 per 1000, or \$11 per 5000 plants. Address

PAUL CHILSON,
Bellingham, Norfolk Co., Mass.

Feb'y—21

RUSSIA OR BASS MATS—Selected expressly for budding and tying, **GUNNY BAGS, TWINES, HAY ROPE, &c.**, suitable for Nurserymen and Farmers, for sale in lots to suit, by

D. W. MANWARING, Importer,

Sept., 1859.—1y* 248 Front Street, New York.

LIFE ILLUSTRATED.—A FIRST-CLASS

picture weekly, circulates East, West, North, and South. Adapted to the interests of all—to the farmer, planter, merchant, inventor, artisan, mechanic, to schools, the learned professions, law, medicine, and divinity. \$2 a year.
Feb'y—21 FOWLER AND WELLS, New York.

THE

GENESEE FARMER
FOR 1860.

CONTENTS OF THIS NUMBER.

Bones as a Fertilizer.....	41
Large Yield for Two Acres.....	42
Scarcity of Podder. Cotton in Illinois.....	42
Potatoes Planted with Corn. Guano.....	43
California Potatoes. Wheat from the South.....	43
Cut and Crushed Food for Horses.....	43
Farmer's Clubs. Heavy Oats. Plaster.....	44
Large Yield of Large Pumpkins.....	44
Feeding Turnips to Cows.....	44
Spirit of the Agricultural Press.....	45
Testimonial to John Johnston, of Geneva.....	45
Large Farms. Osage Orange Hedges.....	45
Large Fleeces of Wool. Singed Bacon.....	45
Fertility of Subsoils. Farming in Missouri.....	45
Salted Water for Sheep.....	45
Notes on the Dec. and Jan. numbers of the Genesee Farmer.....	46
Hampshire Bacon. Cure for Heaves in Horses.....	47
Selecting Calves for Rearing. Knot killer. Seed Corn.....	48
The Proper Depth of Underdraining.....	48

GENESEE FARMER PRIZE ESSAYS.

Can Sheep be Profitably Fattened in Winter, and How.....	48
Raising Sweet Apples for Feeding Cattle and Swine.....	50
Raising Rye instead of Oats for Feeding.....	51
Feeding Cattle. Is it Best to Hill Corn, or not.....	51
The Best Method of Raising and Fattening Hogs.....	52
Substitutes for Hay. G. od Hogs.....	53
Wagon Tires. Water for stock.....	54
White Specks in Butter.....	55
Vetches and Tares. Wood Land.....	55
Recreations and Amusements for Farmers and their Families.....	56
Hunting Wild Bees. Dwarf Pear Trees.....	57
Best Method of Renovating Old Orchards.....	58
Apple Trees Around the Farm.....	59
Best Fruit for Market Purposes.....	59

HORTICULTURAL DEPARTMENT.

Fruit Growers' Society of Western New York.....	60
Injury to Apple Trees at the West.....	62
Grafting Grape Vines.....	63
White Sprouting Broccoli.....	64
The Fuchsia, or Ladies' Ear Drop.....	65

EDITOR'S TABLE.

April Cash Prizes.....	66
Great Success of the Genesee Farmer.....	66
Notes on the Weather.....	66
Items, Notices, &c.....	67
Inquiries and Answers.....	67

REVIEW OF THE MARKETS.

General Remarks.....	68
Market Reports.....	68, 69

ILLUSTRATIONS.

Grafting Grape Vines.....	63
White Sprouting Broccoli.....	64
The Fuchsia, or Ladies' Ear Drop.....	65

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

By JOSEPH HARRIS.

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

TERMS—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants.

The address of papers can be changed at any time.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.

Address

JOSEPH HARRIS,

Publisher and Proprietor, Rochester, N. Y.

The terms of the GENESEE FARMER are: Single Subscribers, Fifty Cents a year, in advance; Five Copies for Two Dollars; Eight Copies for Three Dollars; and any larger number at the same rate. All subscriptions to commence with the year.

In addition to this reduction of one-fourth, we offer the following List of Specific Premiums as an extra inducement for our friends to form Clubs.

SPECIFIC PREMIUMS.

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *Rural Annual* for 1860.

2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *Genesee Farmer* and one copy of the *Rural Annual*, pre-paid, by mail.

3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

Any larger list than twenty-four will probably take some of the Cash Premiums given below. If not, the Specific Premiums will be increased in the same proportion as the above.

APRIL CASH PREMIUMS

For the Greatest Number of Subscribers.

As some compensation to our numerous friends for their disinterested efforts in increasing the circulation of the *Genesee Farmer*, we offer the following List of Cash Premiums for the greatest number of subscribers sent in after the fifteenth day of January and before the fifteenth day of April. Those who took the January Premiums will be allowed to compete for the April Premiums; but in this case, and in all others, the lists sent in previous to the fifteenth of January will not be counted. The premiums will be awarded to those who send in the greatest number of subscribers between January 15 and April 15. The names of the successful competitors, together with the number of subscribers, will be announced in the May number, and the Premiums paid immediately.

1. TWENTY-FIVE DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 37½ cents each) before the 15th day of April, 1860.

2. TWENTY DOLLARS to the person who shall send us the second highest number, as above.

3. NINETEEN DOLLARS for the third list.

4. EIGHTEEN DOLLARS for the fourth.

5. SEVENTEEN DOLLARS for the fifth.

6. SIXTEEN DOLLARS for the sixth.

7. FIFTEEN DOLLARS for the seventh.

8. FOURTEEN DOLLARS for the eighth.

9. THIRTEEN DOLLARS for the ninth.

10. TWELVE DOLLARS for the tenth.

11. ELEVEN DOLLARS for the eleventh.

12. TEN DOLLARS for the twelfth.

13. NINE DOLLARS for the thirteenth.

14. EIGHT DOLLARS for the fourteenth.

15. SEVEN DOLLARS for the fifteenth.

16. SIX DOLLARS for the sixteenth.

17. FIVE DOLLARS for the seventeenth.

18. FOUR DOLLARS for the eighteenth.

19. THREE DOLLARS for the nineteenth.

20. TWO DOLLARS for the twentieth.

21. ONE DOLLAR for the twenty-first.

Our Agents, and Competitors for the above Premiums, will remember that our terms are always IN ADVANCE.

Subscription Money may be sent by mail at my risk, and you need not "register" the letters.

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR,

February 1, 1860.

ROCHESTER, N. Y.

STEREOTYPED BY JAMES LENNOX, ROCHESTER, N. Y.

THE Genesee Farmer

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

SOME HINTS ON SPRING WORK.

MARCH, the "suriest month of all the year," has come again, and, though in many localities icy winter still continues to reign, the tocsin of preparation sounded on every side by nature begins to be heard.

Now is the time for the farmer to exercise all his vigilance and forethought, and to see that every moment of time is turned to account. See that a sufficient stock of fuel is laid in at the house for summer wants, and that the rails are drawn and laid where they are likely to be handy for repairing fences. Put the fences and gates into repair, as soon as the ground is thawed enough to fix the stakes.

Have you a stock of roots on hand? Every good farmer ought to have. Now is the time to feed them out to the animals on the farm, especially milch cows and breeding ewes, to enable them to give a full supply of milk for their young.

See that the yearning ewes are separated from the rest of the flock, given a little extra food, and all ags and dirt removed from them. At lambing time, keep them comfortably housed, with plenty of good, clean straw to lie on, and do not forget to let them have access to clear, pure water at all times. They require constant care at this time, if it is desired to raise the lambs. The ewes may be let out into the yard every afternoon, but the lambs are better to remain in the house till they are at least a week old, strong and healthy. All changes and exposure, especially to the sun or rain, is injurious to them, as also is lying on the cold, damp earth. The lambs will soon learn to eat, if a little fine chopped hay or oat-meal is placed in a shallow box or trough in their house, while the ewes are out, and if it is desired to bring them forward early for the butcher, this extra feeding will help them greatly.

Feed the cows well, and do not let them fall off in their milk while waiting for the grass to come. Give the working animals enough of such food as

will produce muscle,—not fat—and give them a moderate amount of daily exercise.

Keep the yard well littered with straw, and the cattle confined to it. There is nothing gained by letting them wander over the farm, making tracks in the soft ground wherever they go. Stock should never go to grass till the ground becomes settled firmly enough to bear them without showing foot-prints half an inch deep. Pile up the manure in the yard as fast as it is made, mixing into the heap all the scrapings of the house, fowl and sheep yards, hog pens, etc.

Pick over the potatoes, and select the largest and soundest for seed. If they are cut, roll them in plaster of Paris, and sprinkle plaster over them while lying in the cellar. It is said to act in some degree, as a preventive of the rot. We know of some farmers who sow a tablespoonful of plaster in each hill, or over each set, at the time of planting, and who ascribe the freedom of their potato crop from disease to the use of plaster. From the known tendency of salt to destroy fungoid life in its early stages, we think sowing it on the potato plant might be the means of mitigating the rot. We, however, only throw this out as a suggestion to those who may be willing to try the experiment.

Sow a bushel of plaster per acre on clover as soon as the ground is dry.

Clover and grass seeds may be sown this month,—on the snow if you like—though they will do as well, if not better, when sown just after the warm spring rains. Harrowing is generally unnecessary, but a light brush harrow is used sometimes with advantage. Where it is desired to ameliorate the soil, or obtain good pasturage, and plow it again in a year or two, we should sow nothing but pure clover, at the rate of 10 to 15 lbs. per acre. But where permanent mowing meadows are desired, it is well to sow a mixture of equal parts of clover and timothy, with the addition, perhaps, of some other grasses, of such sorts as can be grown in the locality with advantage; say

3 lbs. of Italian rye grass, or 2 lbs. of meadow fescue, or 1 lb. of red-top, or 2 lbs. of meadow fox-tail, or 3 lbs. of Kentucky blue grass, or 4 lbs. of orchard grass. Clover or grass seeds do better when sown on barley or spring wheat than on any other spring crop.

Roll the meadows and winter wheat as soon as the frost is out and the land tolerably dry. Old meadows will be the better for a good harrowing in the spring before rolling.

Do not be in too great a hurry to set the plow to work. Let the land become dry enough to turn over mellow. The surface then soon becomes warmed, and you can sow immediately.

Peas can be sown earlier than any other crop, and no farmer should be without a small field of them. The white varieties are most suitable for light soils, the grey kinds for strong clays. The best sorts of white pea we know of, are the Golden Drop, and Racehorse. Peas do well on an old sod plowed rather flat, but not shallow, and the land may be rolled, after harrowing in the seed, with advantage. If the land has been plowed the previous fall, they may be sown at once and lightly plowed or cultivated in. Three bushels per acre is the usual allowance for seed in Canada, where peas are very successfully and extensively grown. After the young plants are well forward, a top-dressing of a mixture of ashes and plaster will be of great benefit.

Spring wheat comes next, the soil for which ought to be in good heart, and free from weeds and moisture. The land for this crop is better to be plowed ridgy, so as to harrow down well over the seed; unless a seed drill is to be used. It is more liable to smut than winter wheat, and as a preventive of this disease, use a solution of three oz. of blue vitrol dissolved in a quart of hot water to each bushel. Let it cool, and then sprinkle the solution over the wheat on the barn floor, turning it over with a shovel at the same time, until every grain is dampened. It will be ready for sowing in two or three hours after. Among the best sorts are the Fife, Canada club, Tea and Italian. It is of great advantage to sow spring wheat as early as possible, provided the ground is dry and mellow; though it is thought by some, that if sown late it will more readily escape the ravages of the widge. Two bushels per acre is the usual allowance for seeding.

After this, barley may be sown, the land for which should be warm, rich and mellow, and if plowed the previous fall, may be sufficiently prepared by going over it twice with a two or three horse cultivator, and harrowing between. The

common two-rowed variety of barley is perhaps the most reliable for general cultivation, though other sorts succeed best in particular localities. Barley does best on land that has grown corn or root crops the previous year, and it always requires a well drained or gravelly soil, to yield heavy crops. The usual amount of seed sown is too little. From 2 to 2½ bushels per acre is the least that should be allowed. A friend at our elbow says, "If the seed is steeped for twenty-four hours before sowing in a weak solution of crude nitre, which costs only about six or eight cents per lb., the plants will germinate rapidly and come up strong and of a dark color." After the plants are well out of the ground, the land may be rolled with advantage.

Oats usually come next after barley, but we think they might be sown earlier. They will bear being sown on an undried soil in early spring, better than barley or spring wheat. Early sown oats produce the most grain—late sown, the most straw. If oats are to be raised in low, rich, damp meadow lands, on which they often do well, they are better to be sown late—say just before corn-planting. The white varieties of oats are best for upland, dry soils, and the black kinds for moist soils. Here again the quantity of seed usually allowed is, in our opinion, far too small; 2½ to 3 bushels per acre is little enough.

The land for corn and roots can be put in a forward state as soon as the earlier spring crops are sown. Great care should be exercised in selecting seed corn, so as to get such kinds as mature early.

SURFACE MANURING.—Mr. CLARK, in the *Country Gentleman*, maintains that nature has always applied manure on the surface, and that it is a great mistake to *oppose* nature by art, especially in connection with the processes of plant growth; that the highest aim of art should be to remove obstructions, and place the elements, after we have to a certain extent manipulated them, in the best known position to give nature the fullest and most effectual scope for action, and that the surface is the place where the separation of the organic and inorganic elements occurs, and that the medium—water—which carries the one downward and supplies vapor to facilitate the ascent of the other, is applied at the surface.

On the opposite side, a writer in the *American Agriculturist* says "Nature is not a cultivator. It is true that lands are fertilized by natural processes, but he who waits for the returns would need the life of a Methuselah, thrice lengthened. Man wants quick returns, and to secure them, he must often

do violence to nature. Nature's liberality is profuse, but undirected; she is to work for man, and it is for his science to discover her capabilities, and turn them to account, and not to blindly follow her lead. Though an indispensable servant, and often a reliable adviser, she is not the infallible teacher that many suppose."

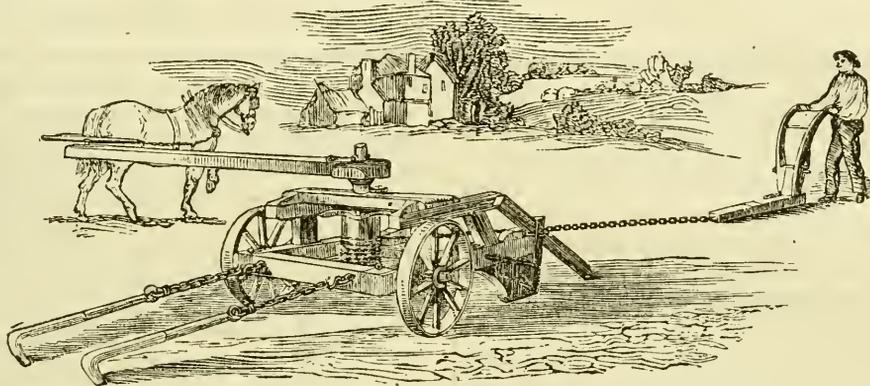
MOLE DRAINS.

THESE are the simplest of all covered drains, and are usually formed by means of a machine called a mole-plow, of which there are various patterns in use at the West. Our engraving represents such a machine as is commonly used for this purpose in Great Britain.

long enough to make the operation of mole-draining profitable, and there is no doubt it is both cheaper and more efficient than open drains, as well as of vastly more benefit.

The mole-plows used in Illinois are many of them good machines, but being generally patent-right articles, are very expensive—the price varying from \$100 to \$175 for good machines.

The Hon. A. B. DICKINSON, of Hornby, Stenben Co., N. Y., has drained his large farm effectually without the use of tiles, by means of a very simple machine of his own. HORACE GREELEY, in an interesting account of Major D's farm, describes this implement and the way in which it is used, as follows:

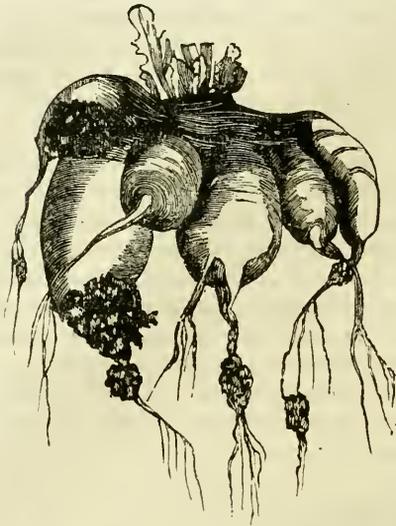


AN ENGLISH MOLE DRAINING MACHINE.

This machine consists of a strong wooden beam and stilts, to which is attached a broad coulter, which can be raised or lowered by means of a slot in the beam. To this coulter is attached, horizontally, a short, cylindrical, pointed bar of iron. The beam is sheathed on the under side with iron, and moves along on the surface of the ground; thus keeping the bar at the end of the coulter at a uniform depth. The machine is dragged through the soil by means of a chain and capstan, worked by horses, as shown in the foreground of the engraving, and produces in its course a hollow channel similar to a mole run—from which it derives its name.

These drains can only be constructed with benefit, in strong clay, or soils of sufficient tenacity to resist being washed away by the action of the water, and thus filling up the drains in a short time; and then the improvement is of a very temporary kind in comparison with that effected by proper tile or stone drains. Still, on the stiff subsoils of Ohio and the prairie lands of the West, they have been found of great benefit and to last

"I believe there is not a rod of tile laid on this farm, and not a dozen rods of covered stone drain. But the major has a home-made, or, at least, home-devised, 'bull plow,' consisting of a sharp-pointed iron wedge, or roller, surmounted by a broad, sharp shank nearly four feet high, with a still sharper cutter in front, and with a beam and handles above all. With five yoke of oxen attached, this plow is put down through the soil and subsoil to an average depth of three feet—in the course which the superfluous water is expected and desired to take—and the field thus plowed through and through, at intervals of two rods, down to three feet, as the ground is more or less springy and saturated with water. The cut made by the shank closes after the plow and is soon obliterated, while that made by the roller, or wedge, at the bottom, becomes the channel of a stream of water whenever there is any excess of moisture above its level, which stream tends to clear itself and rather enlarge its channel. From ten to twenty acres a day are thus drained, and Major D. has such drains of fifteen to twenty years standing, which still do good service. In rocky soils, this mode of draining is impracticable; in sandy soils it would not endure; but here it does very well, and, even though it should hold good in the average but ten years, it would many times repay its cost."



ANBURY, OR CLUB-FOOT, IN TURNIPS, CABBAGE, &c.

This disease, not uncommon in Great Britain, where it is generally known by the appellation of "fingers and toes," has of late years appeared to some extent in this country, especially among cabbages. It was long supposed to be caused by the agency of insects, but is now believed to result from certain conditions of the soil. Our engraving represents a purple-top Swede turnip badly affected with anbury.

Turnips are most subject to this disease when grown on a soft, rich, black soil, and it rarely occurs in those grown on soils having a fair proportion of clay marl, or lime, in their composition. On well drained soils, it is said never to occur. When turnips are grown for successive years upon the same ground, they become liable to be affected with this disease. The disease makes its appearance in the early stages of the growth of the plant, and if the bulbs remain healthy till they are the size of a walnut, they are considered past danger from it. When turnips are affected with it, the roots become fibrous, the circulation is stopped, the anbury decays and attracts to it numerous insects, which deposit their eggs therein, and the turnip soon becomes filled with maggots; which has led many to suppose the disease was caused by insects.

Cabbage plants are often affected with anbury while in the seed bed; it then appearing in the form of small excrescences on the stem, just above the roots. Such plants should invariably be rejected at the time of transplanting, and then the cabbages may be expected to be free from club-foot.

No specific remedy has yet been discovered for this disease, nor is one likely to be, as it appears to

become chronic when it once attacks the plants. Prevention in this case, as in most others, is better than cure. The use of lime, bone dust, and all manures having a proportion of lime in them, is said to prevent in a great degree the occurrence of anbury among turnips. The most effectual way of keeping it out of cabbages is to spread charcoal dust half an inch thick, and lightly mix it with the surface soil on those spots where cabbage plants are raised from seed, just before sowing. Soot would probably answer the same purpose. After the cabbages are transplanted, they should be well watered at the roots for a few days, and if any of them show indications of being affected with anbury, they had better be pulled up at once, as they will never come to anything.

DRAUGHT-BARS OR WHIFFLETREES.

THE subject of draught is one meriting some attention, but our limited space will not allow us to say all we could desire on this subject. The whiffletree commonly used in this country is too often unnecessarily heavy. The best are those made of well-seasoned second-growth white ash.

We give cuts of two improved draught-bars used in England. Fig. 1 is made of light wrought iron, trussed in the middle, and welded at each extremity, leaving an eye for a ring to attach the trace hooks to, the iron bolt in the centre having a hole to attach it to the centre bar. Fig. 2 is made of wood, and is trussed on a wrought iron rod, to which the draught hook is attached by which to fasten it to the doubletree, or a single horse plow, etc.

The whiffletrees generally used in this country are made too short, and the traces consequently rub against the horses' sides or hips. They should be long enough to leave the traces clear of the animal. Another fault is, the animals, when worked abreast, are placed too close together. No draught power is lost by placing them so far apart that they can not come in contact with each other near the shoulder.

LARGE FIG.—Mr. R. M. Wool, of Tompkins Co., N. Y., sends us an account of a pig of the Yorkshire breed, recently slaughtered by a neighbor of his. It was just nine months old, and weighed alive 509 lbs., and when dressed, 449 lbs.

SPIRIT OF THE AGRICULTURAL PRESS.

WHY BARLEY SO OFTEN FAILS IN NEW YORK.—

A correspondent of the *Country Gentleman*, writing from Madison county, N. Y., after adverting to the benefits derived from the teachings of JOHN JOHNSTON, on the subject of improving soils by underdraining, etc., says: "The amount of ignorance as to true farming is extraordinary. The early settlers found the soil fertile, and they practiced a system of constant cropping, which their children have followed after them till they found that the crops failed, and then they began to look around for the cause. Barley has ceased to be grown in this county, because the land wont grow it; but many farmers do not know the cause (or wont). They ascribe its failure to unpropitious seasons, insects, defects in seed, etc. One of my neighbors sowed one field to oats seventeen years in succession! and when he wanted to sell his farm, he cited this fact to prove the richness of the soil.

SPARRED FLOORS FOR CATTLE STALLS.—A Canadian correspondent of the *Country Gentleman* strongly recommends the adoption of Mr. MECHE's plan of having the floors of cattle pens constructed of spars placed $1\frac{1}{2}$ inches apart, so as to allow of the droppings passing through into a cellar below. He has tried this method both with cattle stalls and hog pens, and says he finds it just the "thing." He found the droppings did not freeze, that the manure was better and more concentrated, that the animals kept very clean and dry, and appeared to be equally as warm as if bedded in straw. For the pig pen the slats are placed closer together.

HUNGARIAN GRASS INJURIOUS TO HORSES.—An Illinois correspondent of the *American Agriculturist* states that last winter several horses became seriously afflicted with stiffness of the joints. They had been kept in good condition on Hungarian grass, and from the fact of other horses that had been fed on hay, being exempt from the disease, the general belief is that eating Hungarian grass was the cause of it—not perhaps the hay itself, but the seed. He thinks it ought to be cut for hay while in full bloom.

STEEPING BARLEY BEFORE SOWING.—A writer in the *Homestead* recommends that seed barley should be steeped before sowing in a solution of copperas or blue vitriol, the same as is often done for wheat, and then rolled in plaster enough to dry it. He says it has the effect of giving it a rapid start, and make it come up strong and dark colored. He thinks the benefit equal to ten extra loads of manure per acre.

HOW MUCH HAY WILL KEEP A HORSE.—A correspondent of the *Wisconsin Farmer* states that he has found by twenty years experience that 15 lbs. of hay and 12 quarts of oat-meal per day will keep a good sized horse of 1150 lbs. weight, in fine condition for farm or road work, and that by using a cutting box, one third of the hay can be saved, and replaced by an equal weight of good straw or cornstalks. The usual estimate among farmers is that a horse will generally consume 2000 lbs. per quarter, of 13 weeks, or 22 lbs. per day. This shows how much can be saved by a judicious method of feeding, as a horse will eat considerably more than is necessary for his well being.

WHY YOUNG MEN LEAVE THE FARM.—ACER, in the *Country Gentleman* justly says: "The reason why so many young men at school acquire an aversion to labor, is, because the *practical application* of knowledge is not taught in the schools. They learn only abstractions." He instances a neighbor's son who had learned at the Academy all about surveying—only he did not know *practically* how to measure a ten acre lot, but could do it on paper.

UNHEALTHINESS OF ARTIFICIAL MANURES.—A correspondent of the *Mark Lane Express* thinks the prevalence of disease among turnips last season, in England, is due to the overdoses of guano and other artificial manures, given to the soil in order to stimulate it to increased production. He also cites the expressed opinion of several practical farmers of the injurious effects of such roots upon sheep and cattle when fed on them.

HOW TO PREVENT STOCK FROM BEING UNRULY.—A correspondent of the *Ohio Farmer* gives it as his opinion, that the common practice of making farm animals jump over the lower rails of fences and bars tends to make them unruly, and says that if the top bar is left up, so that they are compelled to go under it, they will never learn to jump.

LARGE COW.—The *Boston Transcript* says that Mr. CHENEY, of Belmont, Mass., has imported some Dutch cows. Recently several of them died from pneumonia. One of these was the largest animal in the United States, and weighed 3,260 lbs. The skeleton of this animal has been presented to Prof. AGASSIZ for his new museum.

ONE APPLICATION OF GUANO SUFFICIENT.—Gen. CADWALLADER, of Md., who uses some \$4,000 worth of guano per annum, recommends a single application of it to worn out lands naturally fertile, that here its use should stop; it has served its purpose, and no second dressing should ever be applied.

BREEDING AND REARING FARM STOCK.

EDS. GENESEE FARMER:—The art of rearing and breeding farm-stock is of vast importance to the farmers of the State of New York, as every man will admit. Yet, so far as I have been able to learn from the writings of farmers on the subject, or the manner of their keeping, as having fallen under my own observation and of those with whom I am acquainted, there does not seem to be that uniformity in the matter that a new beginner might expect. With your permission, I will give you some of my experiences, and also some of my observations from the practices of others, in the feeding of farm stock; providing, always, that there shall be enough of instruction in what I shall say to be of some service to the novice in the art, (if not, you will please consign this to the grate.) Those who are veterans in the business, I shall not attempt to instruct; but may, perhaps, call them out with something that will instruct us all. As it is now the reign of winter, I shall talk of winter management in this; giving some of my experience in winter feeding, different varieties of food, and manner of giving it, with the result.

Occasionally (as the present time is acknowledged to be), there comes a year of scarcity of hay, in which many are interested in knowing what will keep their stock through the winter in good condition, the most economically; or with the least expense consistent with the welfare of the stock for the time being, and also for the future. That the wintering of stock on the least that will keep them alive, from the time they come to the barn till they are again turned to pasture, as many do, is poor economy, I most firmly believe, and hope to convince all who will take time to read this paper. I suppose my friend JOHN JONNSTON would say that stock should grow as fat in winter as in summer, and I shall not dispute him on that point, as I more than half believe the same thing myself. "How can it be done?" it may be asked. In most of the writings that I have read, it is said that corn-meal is not good food for milch cows; that it has a tendency to *dry them up*, is too heating, and causes them to lay on fat instead of giving milk. Such persons prefer bran, shorts and buckwheat bran, to meal, etc. It is said by some writers, that farmers must not feed grain, as that is too expensive, etc.; also, that, at the present time, all straw, stalks, and even buckwheat straw, must be fed to stock—and that, too, as I suppose, without the addition of meal, etc.; all of which I consider errors in theory and practice. We will now see how my experience agrees with the foregoing. It is now seven years since I learned that corn-meal (without the cob), if not the best, was among the best articles of food for cows giving milk. I then sold my milk daily to men in the milk business. I fed from two to eight quarts per day, and the higher the feed the more milk. I then learned that it made no perceptible difference whether given dry or wet, cooked or uncooked, in the yield of milk or condition of the cows. Therefore, I have adopted the plan of cutting all cornstalks, straw and hay (if not of first quality), and giving each cow or fattening animal such an allowance as they will readily eat up clean, with a feed of meal, consisting of corn and oats, or buckwheat, screenings of wheat, etc., or all together; the basis being corn. The cut feed is put into the

manger dry, and the meal sprinkled over it while the animals are in the yard. Experience having taught me that it is unnecessary to wet the mixture, I have never tried the steaming process, but think favorably of it. I think I shall try it, and certainly shall not condemn it until I do so, or have some proof that it is useless labor.

In the foregoing, I have given my experience and the result, in regard to milch cows. I will now give some experiments in regard to growing stock. In the fall of 1858, I had seven animals, a little over two years old, in fine running order for animals at that age. They were fed in the manner related in the case of the cows, with an average of three quarts of meal each per day, for from four to five months; gaining about three hundred lbs. each, from December 1st, when the feeding commenced, till sold. One heifer, sold at two years and nine months, gained two hundred and ninety-six lbs. in a little over four months. As I have scales, there was no guess-work in the matter. They were sold for \$5 per cwt., weighed on the farm. Now, experience taught me in this case, that they paid well for their keeping the last winter of their lives.

Such being the facts in my farming operations, why cast about for straw, or something cheaper, on which to winter stock, for the sake of selling more grain, when it pays better to feed it to stock on the farm, than to sell it in the market, and have much of it made into intoxicating drinks, to the detriment of our fellow men.

Now, let us take a different view of the case last related. Suppose a farmer has a half dozen head of steers or heifers, at two years old past, worth \$20 per head—as was the case in this vicinity in the fall of 1858 and in 1859. They are wintered cheaply,—that is, on straw, stalks, and, perhaps, poor hay, or even good hay—without any regard to condition in the spring, and, instead of gaining three hundred lbs. each, they loose nearly, or, in some cases, quite that amount of flesh. That will make them from four hundred to six hundred lbs. different in weight; when probably the poor ones have had as much hay, straw and stalks as the fat ones, but no meal. They will then run until fall, and have been sold for from \$50 to \$65 per pair in this vicinity, averaging about \$55. Now, with the meal mentioned in the experiment related, and with a good stable and proper care, the sales were from \$51.50 to \$66.50 per head, and sold in April; thus saving the summer's keeping, and doubling the price.

Brother farmers, let us consult together and find out the best way. Then let the fortunate man, when he has found it, by long trial and actual experiment, give the result to new beginners and others less fortunate. By doing so, you will be conferring a lasting benefit on the world.

I am aware, Messrs. EDITORS, that the subject is not exhausted; but if some one may be stirred up to make some experiments for the benefit of the community, by reading the foregoing, or communicate experiments already made, that shall enlighten the farmer on the subject, which is of such great importance to the country, then the writer of this will have accomplished his desires.

Rome, N. Y.

ONATHAN TALCOTT.

WE shall be glad to hear more from our esteemed correspondent on this subject.

EDS.

THE RATIONALE OF CHEWING THE CUD IN RUMINATING ANIMALS.

EDS. GENESEE FARMER:—On page 68 of the *Genesee Farmer*, for February, 1860, your correspondent, E. B., asks, "What causes cattle to lose the cud, and what is the best remedy?" Similar questions are frequently asked, and much disease of our neat stock is attributed to this "loss of cud."

Literally, there can be no such thing as "loss of cud." Ruminating animals are never furnished with an appendage so ridiculous as "cud," to be used as "gum" in the mouth of a schoolboy, which, if lost, must be supplied with an artificial "cud;" as if the operations of nature must be suspended until this prepared artificial *panacea* is supplied, to take the place of a natural "cud, lost."

By a slight investigation of the anatomy and habits of ruminating animals, this very common delusion would be dispelled, and the slight understanding of the "cud," the causes of its "loss," and the means necessary to be used to restore it, would be more clearly understood.

By ruminants, or ruminating animals, we mean those having a complex stomach, with four cavities so disposed as to allow of ruminating, or the act of at once laying in a large store of food, slightly chewed, and afterward to return it to the mouth, and there more thoroughly masticate it, and fit it for digestion. Digestion is always preceded by this action in this order of Mammals, and they are exclusively confined to a vegetable diet. Now, if debility, loss of appetite, disease of the stomach and digestive organs, or sickness from any other cause ensue, this order of nature may, for the time, be suspended, and the animal have no need to perform the act of rumination. The ordinary operations of a healthy animal are not called into requisition. Hence we hear of "loss of cud." The only "remedy" for this "loss" lies in restoring the animal to health, and if we know what is the disease, we can the more certainly apply the "remedy." But all the "made cuds" that ever entered into the *materia medica* of quackdom can never compensate for the folly and ignorance of applying one.

The stomach of ruminating animals is specially organized for the performance of its peculiar functions. It consists of four distinct cavities, all communicating with a muscular canal, at the termination of the *esophagus*. Coarsely masticated food passes from the beginning of the muscular canal into the first cavity, called the *rumen*, or paunch. Water is received into the second cavity, called the *reticulum*, and almost exclusively occupies the honey-comb cells of that cavity, and is gradually mixed with the coarsely divided food which is undergoing mastication in the *rumen*. When this is sufficiently advanced, a portion of the mass is raised into the muscular canal, is there moulded into a ball, and by a spasmodic action of the muscles of the gullet, is forced into the mouth, where it is perfectly masticated at leisure, mixed with saliva, and again swallowed. It now passes directly into the third recess, called the *psalterium*. Here the superfluous fluid is absorbed, and the thoroughly subdivided mass passes gradually into the fourth recess, called the *abomasus*, where it is completely digested, and from which it passes off into the lesser intestines.

Ruminating is a most interesting process of nature, and it is a most pleasing study to observe and note its manifold operations, and to witness the supreme satisfaction of a well-fed animal "*ruminating*," or elaborating by this wonderful provision of Providence,—the mastication of food by deglutition, ejection, and final swallowing—otherwise, "chewing the cud." When we become more thoroughly familiar with the beautiful economy of animated nature, and its most wonderful organization, we shall no more hear of the "loss of end," but will attribute effects to their proper causes, and call things by their right names. J. V. H. C.

Manlius, Onondaga Co., N. Y., Feb., 1860.

NOTES ON THE DECEMBER AND JANUARY NUMBERS OF THE GENESEE FARMER.

LUCERNE.—MESSRS. EDITORS, you say, "This plant was extensively cultivated by the Romans." And so it is now in Peru, and some other South American States, both for pasturage and soiling purposes. It is there grown under the name of "Alfalfa," which the late Capt. HERNDON, in his "Valley of the Amazon," says, "is a very green and pretty Lucerne, universally used in this country (Peru) for pasturage." And it is also being extensively grown in California for pasturage. In the Fourth Report of the California State Agricultural Society, 1857, it is said by the viewing committee on farms, etc., "that on the bank of the Aguba River, is the Quintery farm of Messrs. PINNEX and CAMERON, containing four hundred acres, three hundred of which is laid down to Alfalfa, and is divided by good fences into three fields, in which they herd or feed stock for hire. This is their business; and so good is it, that, while they charge just twice as much per month as their neighbors, who feed with ordinary grasses, they can not take half as many head as are offered to them. Their terms are three dollars per month per head, and they limit the number to two hundred. The field into which the cattle had just been turned (they feed down the fields alternately), had been fed down twice this season, and now the clover is nearly three feet high, and in bloom. (This was about the middle of June.) While all other grasses and clovers, under similar circumstances, are perfectly dry and yellow, the Alfalfa exhibits the most fresh and luxuriant green. The roots of this clover run down through a close soil, till they reach water, though the same be far below the surface. Last year's freshet washed away the banks of the river, and exposed the roots about twenty feet below the surface." The President of the Society, in his opening address at the State Fair in 1857, said: "It is certain that, on large districts of our country, when other grass crops dry up entirely before the month of June, Alfalfa will, when once well rooted, continue green the year round; yielding three hay crops annually, and affording a full pasture, equal in richness to a grain field. It makes good hay and good pasture, in spring, summer, fall and winter. This crop, however, is said to have this peculiarity, which should be well understood, that, when once well rooted, it can not be exterminated; and, of course, no other crop can be cultivated on the same land." Well, who would wish to exterminate such a God-send? Its seed, unlike the Hungarian grass does not require annual sowing; nor does the

Alfalfa, like the Canada thistle, white weed, and other similar pests of the farm, spread itself "all over creation." Is there any reason why this clover can not be successfully grown in the Southern States, and on the deep prairie, and other rich soils of the West? It seems to me, this plant is worthy of extensive experiment in the sections of country above named.

FEEDING FARM STOCK is the leader in the December number of the *Genesee Farmer*, and it contains a fund of scientific and practical information for us farmers; but there are a few statements in it I beg leave to comment upon,—such as the statement, that "the nitrogenous substances of vegetables are precisely the same in composition as the muscle or flesh of animals; and it is supposed that the nitrogenous substances of vegetables are converted into flesh without decomposition."

Will you please inform us by what process the gluten of wheat, corn, barley, oats, and the legumin of peas and beans, are changed into beef-steak, without first undergoing decomposition? or, how vegetable albumen, found in cabbage, turnips, roots, and other forage plants, becomes the white of an egg, or the casein of milk, without first having been subjected to the processes of decomposition, recombination, and a complete rearrangement of the molecular particles of the constituents of the vegetable albumen? Starch, gum, and sugar can all be changed into fat, for these substances are all chemically alike; that is, they all have nearly the same proportions of carbon, oxygen and hydrogen, (and no nitrogen). By slight differences in the combination of these elements, they form the different substances, viz: starch, gum, sugar and fat. Starch, in the laboratory of a chemist, can readily be changed into gum, and then sugar, but to convert the sugar into fat, requires the more efficient agency of animal chemistry. And is not the starch, sugar and gum decomposed in the laboratory of the animal before they become tallow, lard, or oil? These questions are simply asked for the purpose of eliciting correct information, such as we tillers of the soil can understand.*

Bran may, for aught I know, be more nutritious than the finest flour, but would not bread made from unbolted wheaten meal, be more healthy and nutritive than that made from the bran alone, or from the finest flour? But, as Graham bread is not a general favorite, we predict that, for some time to come, bipeds will eat the fine flour, and quadrupeds the bran.

Pigs will thrive well on skimmed milk, but they will fatten faster if fed on unskimmed. The transition from cream to hog's lard is an easy one, when liberally fed to a healthy pig, especially if it is of the Chinese or Suffolk breed.

A judicious rotation of crops, in the long run, will prove more profitable than the haphazard course pursued by too many farmers.

The skilful chemist can accurately determine the actual and relative proportions of carbonaceous and nitrogenous substances in corn, wheat, peas, beans, etc. But the analyses of the chemist, and the conclusions drawn from them, are not always fully sustained when tested by actual experiment. There are so many unseen and unknown contingencies connected with our experiments in vegetable

and animal nutrition, that we can not always arrive at the exact truth of the matter sought. There is a wonderful difference in different animals,—man included—to take on fat and muscle. Everything DANIEL LAMBERT ate, seemed to all run to fat, till he became a miniature mountain of human fat. The assimilating vessels of others are so constituted that they draw largely from the nitrogenous properties of their food, and take on muscle, or lean meat, to the almost entire exclusion of fat. Others, again, will neither take on "fat or lean." You might as well attempt to fatten a pair of steelyards as one of them. CALVIN EDSON, the "Vermont living skeleton," who was exhibited about the country a few years ago, at so much "a sight," was of this last named class.

If a bushel of peas contains three times as much nitrogen as the same quantity of corn, and, if all the nitrogen of the peas could be assimilated, then would it not produce three times as much muscle and other nitrogenous animal substances as the corn? But, you say the assimilation of nitrogen it in proportion to the available carbonaceous substances. This may all be correct, and if so, then would it not be profitable to feed potatoe, or other cheap starch, with the pea-meal? Starch is soluble in boiling water, and then mixed with the pea-meal in the right proportions, a much larger amount of the nitrogen would be assimilated. The above, however, is a mere suggestion.

Warner, N. H.,

L. BARTLETT.

BEST FOOD FOR LAYING FOWLS.

"WHAT kind of food will cause hens to lay the most eggs?" is a question much easier asked than answered. It will, we fear, never be decided. Some say feed oats; others barley, buckwheat, etc.; but we say that it is a judicious rotation of feeding that produces the best results. No one kind of food will make hens lay well, unless they are provided with the requisite concomitants, such as fresh meat, when worms and insects are not to be had; charcoal and calcareous matter, such as broken bones, oyster shells, effete lime or old lime mortar, to assist nature in forming the shell of the egg, all of which are found in a wide range, without our especial attention, or at least enough to cause a hen to lay her maximum of eggs. Broom-corn seed is a good grain to feed to fowls, but they will not eat it in its whole state with that avidity with which they will eat other grains; but by crushing or grinding, it is highly relished by fowls, but should be fed sparingly.

No animals are easier kept than fowls. No kind of food comes amiss to them. They obtain their living promiscuously, and pick up everything that can be made use of as food in the farm-yard; even the worms, grubs, and bugs give them the most nutritious food; and it has been satisfactorily proved that there is no substitute for potatoes, if they are boiled and mashed, and mixed with a little corn-meal, shorts, or even bran, as a promoter of laying. The more varied the food the better. As to green food, they are partial to lettuce, cabbage, endive, spinach, chickweed, grass-seeds, etc.; and if insectivorous food is wanted, there is nothing, perhaps, so easily obtained at almost any season than this, by the following method: Procure a deep crock, into which put some wheat bran, and cover it with

* See Johnston's Agricultural Chemistry, p. 590.

a glass cap, so as to admit light but exclude rain; in a few days it will be a moving mass of living insects or grubs, which can be thrown out to the poultry. There is nothing they will devour so greedily; but this should be sparingly given, as the fowls are so fond of it that, if given abundantly, it will prevent them from taking their usual food, and, squash bugs especially, will sometimes give them disease.

Regularity, where fed by the hand, should always be observed in the hours of feeding, and also in the quantity of food given. Not surfeit them one day, and starve them the next; but give the fowls their food as regularly as you take your own meals.

"Which breeds of fowls are considered the best for producing eggs?" This, also, is one of those questions more easily asked than answered. "What breeds of fowls would you recommend keeping for economy and profit?" is a question frequently put to us. To which we would answer, those which are considered the most useful sorts:

1. The Dorking fowl, an ancient breed, which COLUMELLA, who lived in the middle of the first century, accurately describes, as we have it now, as being the best fowl of his time; speckled in color, of great beauty of plumage, and possessing the fifth toe; to which we might add, somewhat delicate in constitution, and seems to thrive best on warm soils; eggs large and well flavored, but not abundant; fair mothers; chickens, though feathering early, not so easy to rear as some other breeds; splendid table fowl, meat white, tender, juicy, and of high flavor; large and plump in body. wants liberal keep and warm housing.

2. Game fowls. Also an ancient breed. We have good authority that this breed existed in England with the Romans. Elegant and compact in appearance, hardy in constitution, excellent caterers for themselves, good layers of delicious eggs, excellent mothers and rearers of chickens, and unsurpassed in flavor when cooked. Indeed, we would recommend a well-bred Game cock in all cases as the best cross to infuse stamina, hardihood and fecundity into a decaying stock of fowls, where *pure blood* is no object.

3. Dominique. One of the best fowls, taken "all-in-all," we have; unanimously pronounced as being hardy, good layers, careful nurses, and affording excellent quality of eggs and flesh.

4. Black Spanish. Noble birds, and abundant layers of very large eggs. The Spanish hen will lay more pounds of eggs than any other breed we know; but they are poor incubators, worse mothers; chickens rather slow to feather, and delicate.

5. Golden Spangled Hamburg. Elegant in plumage, compact and symmetrical in form, great layers of delicious eggs; seldom want to sit, poor mothers, and chickens tender; do not bear confinement, great foragers, and very showy as lawn fowls. The characteristics of the Silver Spangled Hamburgs are similar to the Golden, except in color.

6. Bolton Grey. A nice, plump, and not very hardy bird; elegant in form, beautiful in plumage, first-rate layers, rare incubators, impatient of restraint, excellent caterers for themselves, requiring warm apartments.

7. Poland. Excellent layers of good-sized eggs, rare incubators, poor mothers, chickens rather

delicate, beautiful in form and plumage; require warm housing; good for the table.

8. Brahmas. Hardy, abundant and early layers of excellent eggs, rather small in comparison to the size of the bird; good mothers, chickens strong and grow rapidly, and with good feeding fit for the table at four months old; very quiet, and bear confinement in a small space better than almost any other breed.

C. N. BEMENT.

Springside, Dec., 1859.

MAXIMS.

[From the Journal of a Canadian Farmer.]

"Never put off till to-morrow what can as well be done to-day." Our short working seasons and variable climate render this absolutely necessary.

"Never occupy more land than you can cultivate thoroughly." One acre well tilled is more profitable than two acres slovenly managed.

"Never contract debts, with the expectation of paying for them with crops not yet grown." There are so many liabilities to failure, that we seldom realize what we anticipate.

"Never keep more stock than you can winter well; nor less than will consume all the fodder you can raise." To sell hay or straw is unwise and unprofitable.

"Never expose stock of any kind to the inclemency of a Canadian winter." They require, at least one-third more food, and are poorer in the spring; besides, it is cruel and shiftless.

"Never neglect getting up a year's supply of wood in the leisure of winter." It is unprofitable to cut wood in summer, when wages are double, and every hour is required on the farm.

"Never spend your labor and waste your seed, in trying to raise grain in 'dropsical' land." It is better to spend the price of the seed, and the labor of plowing and harrowing, in drains at the first; then your capital is properly invested, and you will be likely to get a handsome dividend.

"Never plant an orchard with the expectation of its thriving, unless you first prepare the land well, then plant well, stake well, fence well, and cultivate well—hoed crops are the best." "What is worth doing at all, is worth doing well," must always be borne in mind in the raising of fruit trees to anything like perfection.

"Never let your tools and implements be exposed to the decaying influences of the sun, rain, and frost, except when in use." "A place for everything, and everything in its place," will pay at least twenty-five per cent. per annum, in this respect.

"Never depend upon a neighbor's grindstone to sharpen your tools on." It is a waste of time; and time is a farmer's capital, when rightly employed. This might also apply to borrowing in general.

"Never trust boys to plow, unless you are frequently in the field." A man's wages may soon be lost in careless plowing.

"Never trust children to milk the cows, unless some competent person follows after to secure the most valuable part of the milk." A cow is soon spoiled by bad milking.

"Never use the contemptible saying, 'time enough yet'; but always endeavor to do everything in season. "Take time by the forelock." Lead the work, rather than be driven by it.

"Never let the farm absorb all your attention, to the total exclusion of a garden." There is more profit and real pleasure to be derived from a garden, than from any other acre of the farm. A good farmer should also be a good gardener.

"Never think of doing without an agricultural paper, even if you take three or four political papers." They do not meet the wants of an agriculturist.

"Never believe all you read, even in an agricultural paper;" but "prove all things," and practice that which suits your position and circumstances best.

Woodstock, Canada West.

R. W. S.

ENGLISH BACON.

EDS. GENESEE FARMER:—Your method of curing bacon, English way, is the same that I have always seen and been accustomed to at home, pigs either scalded or singed, with this exception, viz.: *rubbing the skin*, of which you take no notice in your description of the process.

Now, I would beg to remind you that it is as necessary to rub the skin as the fleshy part of the flitch or ham, and let me tell how to rub it. Off with your coat, double up your shirt sleeves, have plenty of good Syracuse salt* (the best I know of), and go to work rubbing both sides of the flitch or ham until you sweat again. Lay all your weight on as you rub the salt in, and in this matter do not pinch, or, as we say, "Never lose a hog for a pennyworth of tar." Once done well, it is done forever. The rubbing in of the salt is the cure.

All the other descriptive part of your method is perfect, save another item, viz.: *salt petre*, which I never used more of, either at home or in America, for a pig of from two hundred to three hundred lbs., than a couple of ounces, finely bruised and sprinkled over the salt on the fleshy side, with a little around the shoulder bone; consequently a pig of four hundred lbs. would require less of salt petre than one of less weight. In my opinion, salt petre spoils the flavor of bacon by using too much of it, and does no good whatever otherwise.

I would remark here, that *rust* is the great enemy in America; but probably my place of keeping was not of the right kind. The room was between seven and eight feet high, with two windows, and continual light upon the bacon. It became much rusted, from a quarter to a half an inch in depth. This was of a dark yellow, approaching to a darkish brown rust, and very rancid in taste. I tried this manner of cure for two years only, and I am sorry to say that my bacon failed in this respect, by the rust. In all other respects, everything was perfect all through the summer.

Pittston, Luzerne Co. Pa., Jan., 1860.

W.

CURING BEEF FOR DRYING.

EDS. GEN. FARMER:—The following is a method of curing beef that I saw my father use fifty years ago, and which I have followed all my life.

The length of time required for the whole is from twenty-four to thirty-six hours. Get a wash tub or any other vessel, and put into it three or four inches of water; then set bricks on their edges around the bottom of the tub, on which lay a few cross-sticks to keep the lower end of the beef from falling into the water; on these sticks place your

round of beef (with the bone taken out), with a cord around it to keep it compact; then lay on the top a small sprinkling of salt petre, powdered, a quarter of an ounce; then cover all over with salt, or as much as will lie on at the upper or thick end of the beef. The water in the tub will draw the salt down through every pore in twenty-four hours. Then you may cord it up and hang it up to dry.

I have often cured large mutton hams in the same way,—cutting the small part of the leg off so that the water could draw the salt through the pores.

Pittston, Luzerne Co., Pa., Jan., 1860.

W

Genesee Farmer Prize Essays.

ON BUILDINGS SUITABLE TO A LARGE AND SMALL FARM.

WHAT buildings are suitable to a farm, however large or small, is not a subject of minor importance. They are indispensable to the preservation and security of the products, stock and implements of the farm, and the comfort and health of its occupants. The following are my views of buildings suitable to a large or small farm.

The first and most important of these is the dwelling house. The first, because it must needs be the residence of the farmer while all out-buildings are being erected. The most important, because the health and convenience of its occupants should be regarded first. As it is not my province here to enter into detail, in giving a description of a house, I shall only advance some general ideas in regard to it.

The house may be built of such materials as the owner may choose; but in all cases a cellar with walls of stone should be considered indispensable. Then you have a foundation for stone, brick, wood or gravel wall. The cellar should be divided into as many rooms as the farmer may want, for milk, butter, fruit, roots, vegetables, etc. (An ice-house may be so constructed in connection with the cellar as to be of great utility, in making good butter in warm weather, and storing butter, preserves, fruit, vegetables, etc.) The house should be of sufficient size to accommodate a large family, with additional rooms for laborers, etc., according to the size of the farm.

A farmer's dwelling should contain at least a parlor, dining or living room, cook room, two large bed rooms, a pantry, store-room and closet, on the first floor. The wall should be high, and the first three rooms mentioned not less than 16 feet square. Such a house, when finished, with chamber room in proportion, will afford accommodation for a large family. I would recommend building as nearly square as possible.

A wood-house and wash-room containing boilers, etc., should be considered indispensable in connection with a farmer's dwelling, while adjacent thereto, the water closets should be suitably arranged.

I will here leave the house and its offices, and direct your attention to the barn. The size of a barn for a large farm may be 50 by 86 feet, height, 20 feet. It should be placed on a stone wall. The main floor, 14 feet wide, dividing it in the centre, leaves an equal division on each side of 36 by 50 feet; divide each of these in the centre again, and

you have a bay 18 by 50 feet on each side of the floor. In the end of one of these build a granary, 18 by 18 feet, 8 feet between joints. Directly under the granary may be a root cellar. The remaining 18 by 50 feet may be finished for stables as follows, to wit.: 8 feet high, passage between the bay and manger 5 feet wide, with door at each end, and door to enter cellar-way, between bay and granary. The stalls 5 feet wide, including partitions.

Neat cattle should be well secured in their stalls. I would recommend a chain and strap with buckle, for each stall. A suitable stable for calves may be arranged in one of the above divisions.

There should be two or more doors to each stable, and three at each gable end; one above the main beam and two below, for the admission of hay from the outside. Doors that run upon a track at the top (railroad doors), are much better than those hung upon hinges. This barn should be built with gambol roof.

Sheds should be built with a loft for hay. I oppose anything in the form of a lean-to, or shed without a chamber. Build everything in the shape of stable or sheds, high. A load of hay may be dumped from the horse-fork into the gable end of such a barn as I have just described, with ease.

I will here describe sheds suitable for a large farm. Two buildings, each 30 by 30 feet, 16 feet high, and so situated that they will face each other, the inside corner of each just meeting the corner of the barn. Ends, back and front above the basement, closed tight; one door in each side of the lofts; basement 8 feet high, with large door in the end next to the barn, open in front. These sheds will afford room and protection for a large stock of cattle.

A sheep barn may be constructed the same as one of the above described sheds, except the basement, which should be divided into two equal parts. Each division will be 15 by 30 feet. These should be enclosed tight, except a door ten feet wide, for the passage of the wagon or cart while hauling out the manure. These doors should be short, leaving a space at the lower end, three feet high, for the sheep to pass under. The divisions may be supplied with cribs for feeding in bad weather. Yards may be so arranged that each division will accommodate a separate flock.

The horse and carriage barn should not be connected with other barns. A good and commodious horse barn for a large farm may be as follows, to wit.: 48 by 48 feet on the ground, and 20 feet high. The entrance to the main floor or carriage room should be in the end. The floor should be 20 feet wide, directly through the centre of the barn, leaving an equal division on each side of 14 by 48 feet. These divisions should be finished for stables, except 14 feet off the end of one of them for a granary and feed room. The stables should be 9 feet high. They should be divided into stalls 5 feet wide, facing the carriage room. A trough made of plank, 1½ feet wide and 1 foot deep, placed 3 feet above the floor, will supply the place of manger and feed box. The horse may receive his hay through a tube or box made of boards, the lower end resting on the trough, and the upper extending through the floor above to the loft, where the hay may be thrust in, and drawn out by the horse

through an aperture in the side below. Stables should be well ventilated and supplied with light by means of glazed windows. Each stall should have a small door in front, above the trough, through which the horse may receive his food from the main floor. The carriage room should be 12 feet high. There should be an aperture over the centre, through which hay may be raised to the loft, and there should be a passage from the main floor to each stable. A gambol roof is preferable for this barn.

A corn barn and hog house may be as follows, to wit.: 30 by 30 feet in area, and 16 feet high. It may be divided in the centre by a tight wall; one half of the basement being used for corn, and the other for hog house. The corn house should have a solid plank floor, and a 10 feet door, to drive in with a wagon. It should be 9 feet high, with a crib against the outside wall, 30 feet long. There should be a flight of stairs in the end opposite the large door, leading to the chamber above. This chamber should have a tight floor with an aperture in the centre, through which grain or other heavy substances may be raised to the loft. A trap-door to close it will make all tight. This chamber may be used for a granary or store room, and should be supplied with bins for that purpose. The hog house should be divided into three divisions, to wit.: A passage three feet wide along the side next to the corn house, with a door at each end and one in the middle, communicating with the corn house. There should be a feeding room in one end of the remaining division, 20 feet long, and a sleeping room in the remaining 10 feet. The basement of the hog house may be 6½ feet high. The chamber over the hog house may be used as a store room for farming tools and implements.

A hen house may be large or small, according to the amount of poultry the farmer wishes to keep. It should have a tight floor, and be furnished with poles for roosts and boxes for nests. Should have a door to enter it, and a small slide door for the hens, to the exclusion of vermin when closed.

A smoke house should be of stone, brick or gravel wall, 10 by 10 feet, and 9 feet high. The roof and door should be lined with sheet-iron or zinc. There should be an arch in the side near the ground, where the fire may be kindled from the outside, the smoke being ushered in through a flue from the arch.

Isolated barns for the storage of hay, may occupy such locations as are most desirable.

BUILDINGS FOR A SMALL FARM.

The house we will pass by, as its limits as described above, is already confined to the wants of the family.

The barn may be the same size as above. The floor, bay, and stable across one end the same. The basement of the division at the opposite end may be divided by a partition through the middle, leaving two equal divisions, each 18 by 25 feet. One of these may be open on one side for a shed for neat cattle, and the other may be finished for sheep. We now have a barn, stable, shed and sheep barn, all in one compact body, and under one roof. If still less room is needed, leave off that division now occupied for stable, and make the stable in the bay that has the granary in one end. Your barn will then be 50 by 68 feet.

The horse barn may be lessened in size by leaving off the stable, and 4 feet of the floor on one side; also 14 feet off one end, leaving the barn 30 by 34 feet.

The corn and hog house may also be lessened in size, to suit the wants of the farm.

Middleville, Mich.

F. M. MATTESON.

LARGE OR SMALL FARMS—WHICH ARE THE MOST PROFITABLE?

THE answer to this question depends upon the conditions. We may divide the agricultural population into three classes: Those of limited or small capital; those of abundant or large capital; and a grade between, possessing a moderate but comfortable income. These definitions are not precise, but suggest the idea intended to be conveyed sufficiently for our purpose. Other conditions embrace locality, market, means of manuring, description of soil, and other attending circumstances.

We lay down the axiom, that, in order to succeed well, *everything* should be well done. A farmer with large capital, possessing a knowledge of his business, would engage extensively in it: and, as he could avail himself of all the best labor-saving machines, of a division of labor, of the best modes of husbandry, of abundant manures and of all special manures, and, in short, of all the appliances of science, it follows that, with him, a large farm would be the most profitable. But we need not dwell on this self-evident branch of our question.

There is a large class, possessed only of small capital, whose natural avocation is that of agriculture. Many of this class commit manifest errors. Their capital is small, but their *hearts* may be large; they aspire to responsible positions, and attempt too much. In a country where land is abundant, and readily procured on credit, a 100 acre farm, instead of 25 or 50 acres, is an alluring bait. With means only to cultivate and manage 25 acres, the remaining 75 acres are a dead weight. The capital, or the interest paid instead, is annually extracted from the means required to improve and cultivate the 25 acres, and too often is the cause of utter failure, and most generally of years of toil and unrequited labor. Men of this class should commence with a small farm and stick to it, until they have so far increased their capital, in money and experience, that they can afford to take one step higher with success.

There are notable instances of great profits realized from cultivating a small farm well, which have been noticed in agricultural journals, to which the reader can refer. It will be easy to reach the average given of an English farm, where they pay high rents and taxes. Wheat is given at 26 bushels per acre, barley at 40 bushels per acre, oats, 60 to 80 bushels, and hay, 2 tons. The product of a 30 acre farm in Maine is given as follows: 700 bushels of potatoes, 80 bushels of barley, 25 bushels of beets, 15 bushels of wheat, 10 bushels of beans, 4 tons of mowed oats, 16 tons of hay, 40 bushels of corn, 20 bushels of carrots, 75 chickens and turkeys, a quantity of garden vegetables, 390 lbs. pork, and 400 lbs. butter. 3 cows, 1 yoke of oxen, 2 heifers, 2 steers, 8 sheep and 4 pigs were kept. The product is valued at \$600.

ERASMUS LITTLEJOHN, of Middlebury, Mass., had a farm of 56 acres, of which we have the following

statistics: Improved land, 22 acres; unimproved, 12 acres, and 22 acres of woodland. Soil sandy and gravelly. His corn cost him 21 cents per bushel, hay, \$4 per ton, and potatoes 22 cents per bushel. His net yearly profits rose from \$561.54 to \$810.92 in four years. He kept a *daily* account.

The farm of N. HAYWARD & SON, Monroe Co., N. Y., contained 68 acres of improved land, and 10 acres of unimproved. Total receipts, \$2,726; total expenses, \$1,470 — net profits, \$1,256, or \$18.48 per acre, in one year.

JOSEPH WATSON, of Clyde, N. Y., has kept the statistics of a 50 acre farm, showing the net proceeds of 45 acres, above all expenditures, to be \$999.48 in one year. This farm had no peculiar advantages over ordinary farms. It was not situated near to a city or a special market.

In another case, the products of a 50 acre farm amounted in value to \$1,445 in one year. The leading articles were, 10 acres wheat, 35 bushels per acre; 6 acres apples, 200 bushels per acre; 5 acres corn, 90 bushels per acre; 2 acres potatoes, 200 bushels per acre; 5 acres barley, 40 bushels per acre; 5 acres oats, 50 bushels per acre, besides carrots, hay, pasture, etc.

These instances illustrate what *can* be done on a small farm. Let the reader contrast them with much larger ones around him, and ask the question, whether a small farm, well tilled, in the hands of a man of moderate means, is not more profitable than a larger one would be? If a man's whole capital consists in labor alone, he should undertake only so much as he can do well; and so in every case, according to the *amount of capital*. The first consideration should be, the probable outlay required in the business, and then proportion the extent of the business according to the *available* means in labor, skill, and other capital.

There are many things connected with this subject which force themselves on our attention, but the allotted space is already filled. We know experimentally that very mistaken notions exist in reference to the amount of capital required in successful farming operations. A man that is too poor to become a merchant will readily form an opinion that he is rich enough to turn farmer. Let him try the experiment. He will find that a successful farmer of *fifty* acres of land, requires more capital than a great many country merchants, driving a careful and active business on moderate means and fair credit. We have before us a careful estimate of the outlays, for live stock, implements, seeds, food, and labor, *needed* the first year, for one hundred acres of improved land, and they amount to at least \$2,000. Estimates like this, and more especially *experience*, will wonderfully tend to increase the respect of great numbers of the free and sovereign people, for the useful and time-honored occupation of the tillers of the soil, well described as the "bone and sinew" of the land. W. O. BUELL.

Perth, County of Lanark, C. W.

SOWING TIMOTHY OR HERDS-GRASS.

"Is it best to sow timothy, or herds-grass, by itself, or with other crops? And what is the best method of cultivation?"

THE experience of farmers differs, perhaps, more than that of men of any other profession. For, while mechanics, doctors, lawyers, and others, with a certain rule may expect a certain result, the far-

mer can not make his calculations so surely. If he could, it would have been settled long ago at what time he should sow to insure perfect success. But difference of seasons, climate, and other causes, show him plainly that the time and process which answers well one year, may fail the next.

In regard to sowing timothy with other crops, I have long since given that plan up. It is true that sometimes a crop may be obtained the second year after sowing; but, as a general result, I have found that the young grass grows weak and spindling, and when the crop which has kept it in the shade till harvest is cut, the hot sun is too much for it, and a great portion of it perishes.

After trying various ways and seasons of sowing timothy, the plan which I have settled upon as the most certain, is as follows. Plow the ground thoroughly in the fall, and harrow crosswise until it is well pulverized. Then take three poles and make something like the letter A; hitch to the point where the two ends join, and drag this across the harrowing. This will fill up the holes and level the ground pretty well. Then take a light brush and go across the other way, and there will be a good level bottom for a meadow. This is indispensable, now that machinery is expected to mow the most of our meadows. The ground now is in order to receive the seed, which should be sown any time in February or the beginning of March. My plan is to sow by stakes, and I prefer a light snow to sow upon, as thereby I can better see what I am doing. I sow about a peck of clean seed to the acre, and generally cut a good half crop the first year. Sometimes seed sown in September does well here, but more frequently it is winter killed. This is obviated by sowing in February or March, and, if sown thick enough, we rarely fail. When a set is obtained, a very little good manure hauled out each winter when the ground is hard, will keep it improving.

Never turn on heavy stock when the ground is soft; but the aim should be to keep a level, smooth bottom. With a crop that requires so little after-culture as timothy, every one who wishes to sow should prepare his ground in the very best manner, for the old saying is, "an inch at the bottom is worth two at the top."

WM. D. MITCHELL.

Pin Oak, Warren Co., Mo.

ON THE BEST MODE OF RAISING CARROTS, AND THEIR VALUE FOR STOCK.

THE varieties of carrots most commonly raised are the long orange, white Belgian, and the improved Altringham. I believe that the long orange carrot is generally preferred as a field crop, although the white Belgian will sometimes produce larger crops. Like all other plants designed for field culture, the carrot has been wonderfully improved in its nature and the abundance of its produce. Such is the great productiveness of this crop, under the best culture, that few, if any others, can equal it in value. The soils best suited to the culture of carrots, are deep, rich loams, and rich reclaimed bogs. Good sandy loams will also produce abundantly. Light, sandy soils will yield good crops, if well manured and thoroughly pulverized; in short, any soil sufficiently rich, and that can be cultivated to the depth of ten or twelve inches, will bring excel-

lent crops. The soil must be thoroughly pulverized to a considerable depth—not less than ten inches will answer, at any rate. All weeds, roots, and stones, should be raked off. As many of the weeds as possible should be caused to vegetate and removed before the carrots are sown, which will save much after trouble in keeping the rows clean. Old, well-rotted manure, should be used, as unfertilized dung is apt to cause the "fangs" to grow instead of the long roots.

The manure should be plowed in and well incorporated with the soil as early in the spring as possible, and the ground plowed several times. By plowing the last time with a side-hill plow—thus turning the furrows all one way, and when four or five furrows are plowed, raking them, the raker standing in the last furrow, and drawing all the rubbish into the furrow, then plowing more, etc.,—we obviate the necessity of trampling on the ground, and leave it light and smooth.

Put in the seed in drills 20 inches apart, with a machine. I think they yield quite as large a crop drilled at this width, or even at two feet, as if they were closer together, and with less rows to work. We find they can be grown with greater profit by working the carrot-cleaner, or a small horse cultivator, between the rows, than if all the work had to be done by hand. We plant from the middle to the last of May; and do not know but those planted late do as well as those planted earlier. Two lbs. of seed are sufficient for an acre. A little white mustard seed may be mixed in to good advantage, as it serves to mark the rows by its more rapid growth, and enables us to keep the weeds down without disturbing the rows. As soon as the carrots show their third leaf, they should be hoed and cleaned from weeds. Thin them out to about six inches apart in the rows; after this, hoe and weed them often enough to keep them clean. Clean culture is absolutely necessary, to have carrots do anything. The frequent use of the carrot-cleaner will greatly expedite this business.

For digging, a sub-soil plow may be used, running it on the left hand side of the row, which will raise them, if your team work steady, so that two men can pull them and keep up with the team. We harvest them from the 10th to the 25th of November. The freezing of the top of the ground does not injure them; but it is not safe to let them stand too long, lest they should be frozen in solid, so that they cannot be pulled. Throw them in heaps and cart them to the barn, as it is more comfortable cutting off the tops there than in the fields. The tops may be fed to the cows as soon as they are cut off; they make excellent feed, increasing the richness of the milk and butter. The roots will keep better if cut off about an inch above the crown. A cellar that will keep potatoes is too warm for them; they keep better where they can be kept cool. If piled in large quantities, there should be chimneys, made of slats, and set up every few feet through the pile, in order to ventilate them and keep them from heating. In this way they may be kept well till June. If buried in the ground, they must not be piled too deep, and the ventilators should be left open as late as possible.

Carrots are the most valuable of all roots for horses. Every person who keeps a horse should feed some, as they aid in the digestion of the other

food, and keep the horse in better condition than when fed on grain alone; they also keep his coat as smooth and sleek as if it had been oiled. I can keep a horse in better condition on four quarts of oats and four of carrots a day, than on a peck of oats. When fed to cows, they make the milk richer and the butter yellower. Their fattening qualities are proved to be superior to those of any other roots. Six or eight hundred bushels to the acre is a common crop, and larger crops have frequently been obtained.

MYRON E. TANNER.

Clarkstown, Rockland Co., N. Y.

HOW DEEP SHOULD WE PLOW?

This depends, first, upon the richness of the soil; second, upon the depth to which it has been previously plowed; third, upon the character and quality of the subsoil; and fourth, upon the crop which is to be planted.

If the soil be sufficiently rich, it is best that at least an inch of the soil beneath should be upturned to the atmosphere, at each successive plowing, and exposed to the action of the elements. If the land has been what is called "run" pretty hard, and the farmer has no manure with which to restore the exhausted constituents of the soil, it can hardly be said to be best to plow deeper than the previous cultivators of the same fields have done. But, as soon as suitable stimulants to vegetation can be applied, we would advise the gradual deepening of the culture, until from nine to twelve inches becomes the habitual thickness of the overturned furrow.

If the subsoil be gravelly and light, there is not as great call for deep working as otherwise, nor is the use of a subsoil plow as much demanded. But soil, no matter of what character, lying upon a flat, level subsoil of hard-pan clay, needs to be made of a good depth, either by its own upturning, or by a gradual encroachment upon the underlying clay. The subsoil plow should also follow the other plow, and thoroughly loosen the brick-like substratum upon which the furrow rests.

The deeper we plow, the further down we bury the seeds of noxious weeds, which have often gathered upon the surface about to be overturned. The more we allow the air to circulate among the loosened particles of the soil, the better is the drainage in a wet season, and the more perfect the irrigation in a dry summer. By allowing the air to permeate freely the texture of the soil, we also bring into contact with its constituents the carbonic acid in the air, the ammonia of the atmosphere, the nitrogen and other elements which the soil needs to maintain its integrity, and support the crops we plant upon it. This deeper plowing enables the roots of the plants to penetrate far deeper, while the loosening gives them a wider range; and whether it be food or moisture which they seek, they are far more certain to be fully supplied. In seasons of excessive rain, the shallow plowed fields, where the earth has only been loosened to the depth of four or five inches, are easily saturated with water, causing the death, or, at any rate, the very sickly appearance of the crop; while the deeply stirred land has permitted the penetration of the fluids to the depth of many inches, washing down richness of nourishment to the very

deepest roots, and, while all the land has a sufficiency of moisture, compelling upon none a greater than a proper amount of wetness.

Root crops require a more thorough upturning of the soil than the almost universally cultivated Indian corn. We think that the raising of this purely American product has exerted an injurious influence upon the agriculture of this country. Farmers can, by merely scratching the surface of their land (say, not more than five inches deep), raise, under most circumstances, excellent crops of maize, especially upon newly-cleared soils. This ease of cultivation has led our agriculturists to slackness in the preparation of the land for all other crops, until shallow plowing has almost become the rule instead of the exception. In the older countries of Europe, where land is more valuable and labor more plentiful than in our newly-settled hemisphere, they have learned to improve every foot of the breadth of their lands, and also more inches of the depth than we dare to mention. Cultivation is far deeper than with us, and, as a consequence, crops are both surer and larger. Root crops are raised which would challenge admiration at any of our State Fairs, and grain produced in quantities unprecedented on any of our shallow-plowed and carelessly-cultivated fields.

Let us, as speedily as possible, emulate our European cousins, in their careful application of manures; in their use of every foot of surface, leaving none for weeds or fence corners; and in their depth of culture—furnishing to the growing crops a land that drinks water of the rain of Heaven, so that neither more nor less than they desire of the soaking moisture, of the fruitful showers and the rain from Heaven, shall be supplied to the absorbing rootlets of the growing crops.

Eastburn, Indiana.

MADISON MONTHAY.

BEST TREES FOR A COUNTRY CEMETERY.

THE country cemetery should be a consecrated grove, hallowed with respect for the dust of our deceased friends, in whose deep shade their remains may rest undisturbed, amid the flowers of their silent city, surrounded by the most beautiful objects in nature. What a dreadful thought, that our remains must lie in the country cemetery, as we usually see it,—a treeless and shrubless waste, exposed to the glaring sun and the howling winds; the most conspicuous objects being long rows of tilted tomb-stones, and rude, grassless hillocks, surrounded by briars and weeds, driving away all those tender and lofty emotions we should feel in viewing the resting place of the departed. It is sad enough to turn away from life and all we hold dear, without rendering the grave an object of disgust and dismay.

Let us make our burial grounds attractive—places where we can go to muse upon the uncertainty of life, and the glorious awards after death, and awaken aspirations for a better life. Here nature should be beautiful in her own simplicity, grateful shades, open lawns, easy curves, with graveled walks leading to every grave. The trees should be of many varieties, including a large share of ever-greens, weeping trees and flowers, and may consist of the following:

HARDY EVERGREENS.

Norway and Hemlock Spruce, Siberian and American Arbor Vitæ; Savin, Red Cedar, Black Austrian, Scotch, Corsican, Pyrenean, Cembrian and White Pines; Balsam Fir, Frazer's Fir, European Silver Fir; Douglass Spruce and American White and Black Spruce; Swedish, Irish, Himalayan and Chinese Junipers; Japan, English and Irish Yews; European and American Holly; Mahonias, and the varieties of Box.

MORE TENDER EVERGREENS FOR SHELTERED LOCALITIES AND THE SOUTHERN STATES.

Deodar and African Cedars, Cedar of Lebanon, Japan Cedar and Japan Yew; Funereal, or Weeping Cypress, Euonymus Japonica, Magnolia Grandiflora and Glauca, Rhododendrons, Kalmias, Thuja gigantea and pendula, Torreya taxifolia, Cyrilla Racemosa, etc.

HARDY DECIDUOUS TREES.

Silver Maple, Coffee Tree, Magnolia acuminata, American Linden, European and American Larch, Deciduous Cypresses, Elms in varieties, Tulip tree, Oaks in varieties, Beach and Ash in varieties, Catalpa, White and Black Birch, Red Birch, Cornus in varieties, European and American Hawthorn, Rhus Cotinus or Mist tree, Acacias or locust of the hardy varieties.

TENDER DECIDUOUS TREES.

Laburnum, Koeleruteria, Pawlonia Imperialis, Japan Sophora, Salisburia, Virgilia lutea, and several of the most handsome Magnolias.

Of the weeping trees, there are now quite an assortment, very appropriate to the purpose among which are: European Weeping Ash, Gold Barked Ash, Weeping Black Ash; also, Weeping Beeches, Elms, Larches, Lindens, Sophora, New American Weeping and Babylonian Willows, Weeping Arbor Vitæ, Junipers, Cypresses, etc.

In planting these or other trees, the irregularity and happy combinations of nature should be observed, and the best management they could receive after planting would be to imitate nature in her annual dressings of leaves and decaying vegetable matter. Nothing more will be required. They need no patent fertilizers. I would recommend nothing but a top dressing of leaf mold to keep up the requisite moisture about the roots, and the planting of moderate-sized trees. As regards pruning, I should leave that chiefly to nature also. Clipped and formal trees always look to me like monstrosities, as if nature could not form anything beautiful. I would use pyramidal trees, or those that are naturally so, but would spare them the shears. It is difficult to retain the form by shearing when the trees grow large, and then they are neglected, looking much worse than those that have been left to form themselves in a natural way.

Mt. Victory, O.

W. C. HAMPTON.

CULTIVATION OF FLOWERS.

I THINK that a few leisure hours may be spent very agreeably and very healthfully in the cultivation of flowers, that we may combine the ornamental with the useful. Flowers, of all things, are the most innocently simple, and most superbly complex objects of study. Flowers unceasingly expand to heaven their grateful odors, and to man their cheerful looks; they are patrons of human joy, soothers of human sorrow, fit emblems of the

victor's triumphs and of the young bride's blushes. Flowers are in the volume of nature, what the expression "God is love" is in Revelation. What a desolate place would be the world without a flower! It would be a face without a smile—a feast without a welcome.

"I deem it not an idle task,
These lovely flowers to rear,
That spread their arms as they would ask,
If sun and dew are here;
For simple wants alone are theirs,
The pure and common too—
The beauty of refreshing airs,
The gift of liquid dew.

"Nay, 'tis no idle thing, I trust,
To foster beauty's birth—
To lift from out the lowly dust,
One blossom of the earth;
Where barrenness before had been,
A verdure to disclose,
And make the desert rich in sheen,
To blossom like the rose."

How much flowers resemble the young heart, in its bright morning, before it has stained the foliage of its sinless years. A tradition of them tells us they were once like youth, in this: that they loved, and talked, and had passions like ours. How often and how fondly the poet revels in the field of flowers. Do they not talk to him? Who has ever heard the soft, low whisper of the green leaves and bright flowers on a spring morning, and did not feel gladness in his heart? Like beauty in the human form, flowers hint and foreshadow relations of transcendent delicacy and sweetness, and point to the beautiful and unattainable. From the garden favorite to the dainty wild flower of the mountain, all have an inexpressible charm, an unapproachable beauty. How sweetly and instructively the flower bows its head to the breath of night, or the rude storm. Thus the heart learns to bring a holier offering to the shrine of all good.

"Heart comforts are ye, bright flowers, and
I love ye for your gentle ministry,
And for the ample harvest of sweet thoughts
My soul has garnered in for future use."

We hope our fair friends will not overlook the delightful employment of the cultivation of flowers. Every one may have a few; and when the taste is once acquired, it will not readily be relinquished. A woman destitute of the love of flowers seems to us a mistake of nature. The delicate and the beautiful should have sympathy with all in nature that possess the same qualities. The time spent in the cultivation of flowers is not wasted. They contribute to our pleasure; they add to our knowledge of nature; they unfold to us the beautiful, and tend to elevate the mind.

"They in dewy splendor, weep without woe, and blush without crime."

Although every part of a plant offers an interesting subject for study, the beauty of the blossom seems, by association, to heighten the pleasures of scientific research.

Flowers are indeed lovely; yet they are destined for a higher object than a short-lived admiration; for to them is assigned the important office of producing and nourishing the fruit. Like youthful beauty, they are fading and transient; and may our youth so improve the bloom of life, that, when youth and beauty shall have faded away, their minds may exhibit that fruit which it is the important business of the season of youth to nurture and mature.

L. N.

Windsor, O.



THE various families of Potatoes in cultivation having decided to hold a Convention, they duly met, and, after the meeting was called to order and a great *Rohan* appointed Chairman, *Lady's Finger* was duly chosen Secretary, who, using a mushroom as desk, proceeded to take notes of the proceedings. She is noted for the number of her eyes, and her appointment gave general satisfaction.

Peach Blossom opened the Convention in his usual flowery manner, and introduced a resolution to organize a Society to be named "The Society for the Amelioration of the Condition of Potatoes." He claimed that many members of the family would be greatly improved by a mealier condition of their systems and stated that his own high condition and reputation were largely due to his mealiness of texture, as well as to his largeness of size. He did not wish to "blow" hard or "puff" any system; but a more elegant color was much needed by many of the race.

Merino next took the floor, in opposition to the resolution. It seemed to him but a plan to endeavor to make the whole family more palatable to the monster *Man*. Potatoes will get into hot water soon enough without using any extra efforts. *Merino* had no desire to be put down. The interests of the Convention were vast, and he would advise that they plant themselves firmly in their true positions.

Prince Albert differed from *Merino*, advocated the resolution, which he heartily seconded. Entertained the highest respect for all potatoes, though some were fitter subjects for steam and starch than others. Could produce 500 bushels per acre, and defied others to do as well. Spoke of his eye-brow over his eyes, and asked gentlemen if they saw anything green there? Any way, his health was always good, and no cancer had yet appeared on his face, and his only sufferings were from boils and tubercular consumption. Took first premium at State Fairs in 1857, 1853 and 1859.

Early June thought that *Prince Albert* must have recently come from a potato ball. Some of the older sorts had most evidently been run into the ground, while the newer ones were run to seed. Some were very watery and needed the amelioration spoken of. The sooner they were allowed to "go to pot" the better. (Cries of "dry up.") Moved an amendment, that "No potato hereafter be in any way connected with a broil."

The Chair decided the amendment out of order.

Pinkeye advocated improved cultivation; knew it to be a "harrowing" subject, but hoped always to be able to "come up to the scratch."

Kidney opposed the resolution; thought there were societies enough. Potatoes were doing well enough. He found that among all the hills that flesh is heir to, he was benefitted by viewing them *couleur de rous*. Moved to "lay the resolution on the table."

The Chair thought *Kidney* might go "on the table" himself, and decided the motion out of order.

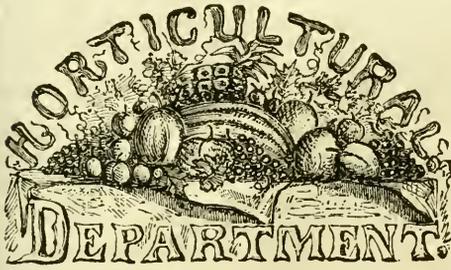
Mercer felt blue: was not mercenary, but wanted to please. A brother of his had fairly turned pale in his efforts to please, and was called an A No. 1 sort.

Mexican defended *Early June*, who was one of the driest of the family, and ought not to be told to "dry up." Such exclamations furnished food for thought, while potatoes that were thus abusive he considered were not fit "food for pigs."

Chair said *Mexican* was slightly personal.

Mexican appealed, and the Chair thought *Mexican* would be peeled soon enough; adding, "Unless you are quiet, sir, you'll be dishd."

The Chairman thought that members had expressed themselves sufficiently as to the resolution, and put the question as to the organization of the Society, when, in spite of the previous apparent opposition, the resolution passed—all eyes.



TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY FOR 1859.

WE are pleased to lay before our readers a few extracts from the volume whose title appears above, believing they will prove both interesting and instructive.

The Massachusetts Horticultural Society, it is well known, is one of the oldest, ablest and most influential societies of the kind in the country, and the decisions of its committees are always regarded with attention. The following are extracts from the report of the Committee on Fruits:

“**STRAWBERRIES.**—The *Wilson's Albany*, a variety that has been highly commended in many quarters particularly for its productiveness, was exhibited in considerable quantity. Those shown were very large berries, of a conical shape, dark colored, and very acid, and did not, on trial, commend themselves for quality to the Committee. Too little experience has yet been had here with this variety to justify the expression of any very decided opinion with respect to its merits.

Hooker's Seedling was shown, and was likewise a large, dark colored berry, acid, but high flavored, and, in this particular, was preferred to the *Wilson's*.

Peabody's Seedling, also, was exhibited, and though large, and of attractive appearance, was thought to greatly lack richness and flavor.

The older varieties, as the *Brighton* and *Boston Pine*, and *Hovey's Seedling*, seem, so far, to maintain in the opinion of cultivators their wonted superiority,—at least, judging from the exhibitions made of this fruit.

In Belmont, where the cultivation of the strawberry receives great attention, it is said that the kinds most depended upon are the *Hovey's Seedling*, with the *Brighton Pine*; this last is considered by the growers there to be peculiarly adapted to be a fertilizer to the former, as blossoming at the same season.

Walker's Seedling, that may now be considered among the older sorts, and of whose merits a favorable opinion was expressed about the time of its introduction, seems to be receiving more attention, and, in some quarters, has received high commendations. At a meeting of the growers of this fruit in a neighboring town, a resolution was adopted recommending it for general cultivation; and in New Jersey, it had previously received recommendation of a similar character.”

“**CHEERRIES.**—The only new or little known varieties of cherries noticed as calling for any special

observation, were the *Monstreuse de Mezel* and the *Cumberland*. The *Monstreuse de Mezel* is a very large cherry, dark colored, sweet and spirited, and was pronounced, on trial, to be of very superior flavor. The *Cumberland* is an American variety, brought out by Dr. Brinckle. It is a large, dark-colored fruit; flesh rather solid, and is rather acid.”

“**CURRANTS.**—No new currant was exhibited.—Although, as has been before stated, there seems to have been a great improvement effected, particularly in regard to size, in this fruit, and it is probably destined to still greater, yet those old favorites and acquaintances, the *Red* and *White Dutch*, still maintain their standing with cultivators. As an evidence of what can be effected by skill and management, specimens of each of these were exhibited the past year, almost rivalling, in size and beauty, the *La Caucase*, the *Versaillaise*, and other new sorts.”

“**BLACKBERRIES.**—The blackberries exhibited consisted almost exclusively of the *Dorchester*; and this variety seems to monopolize the attention of growers in this vicinity. The specimens this year have been very large and exceedingly fine,—25 berries, on one occasion, weighing 6½ ounces; and the exhibition, as made on August 13th, was pronounced by all who witnessed it, superior to any other of this fruit ever made in the Society's Hall.”

“**GRAPES.**—As no opportunity has been afforded the past year for any personal experience with respect to grapes, so there is no opportunity for any observations in regard to this fruit in addition to those of the Report of the past year; the opinion then expressed of the superiority, at present, of the *Delaware* and *Diana* to any other varieties, for general cultivation, being still entertained.

At the annual exhibition, specimens of the *Bowood Muscat*, a new hot-house grape, were shown. In form of the berries, their size and color, it bears a very strong resemblance to the *Connon Hall Muscat*; but, it is stated, possesses a decided advantage over that variety in this, that it sets its fruit freely.

Some new hardy Seedling grapes were also exhibited; among others the *Perkins*, a seedling from Bridgewater. The berries were of good size, of a light amber color, that seemed to be juicy, of a sprightly flavor, without much pulp. And the *Dracut Amber*, also a new seedling, with berries of a good size, or large, in color of a dark amber; that, too, was juicy, and without much hard pulp. The season for grapes has been too unfavorable to justify the formation of any decided opinion with respect to the merits of any of these grapes; besides that, no sufficient opportunity of testing them for that purpose has been afforded.

Specimens of the *Massachusetts White* were also upon the table. They did not appear to be ripe; and what is said with respect to the varieties named above, regarding the season, and the want of opportunity of testing them, is applicable to this variety also; but yet, as much has been said respecting it,—and some opinion in regard to it may be perhaps expected,—it is felt to be a duty to state that, in a cursory and slight examination, no superiority over many of the common wild grapes of the country was indicated, and it is not believed that it will prove to be worthy of any cultivation.

The *Massachusetts White Grape* was introduced by Mr. Watson, of Plymouth, Mass., who described

it as 'the greatest acquisition ever made to our hardy domestic grapes,'—"the flesh is tender, juicy and melting, and entirely free from pulp.' A vine, received directly from Mr. Watson, has borne fruit the past season, which has been exhibited before the Society. Other gentlemen have also fruited it, and state their fruit to be identical with that exhibited. There seems to be no good reason to doubt that the fruit is genuine. If so, it is rightly named. The woods of Massachusetts abound with grapes of similar quality. 'Domestic' is an unfortunate adjective to apply to this variety, for, in the opinion of your Committee, it is far from being domesticated. It has ALL the strongly-marked characteristics of the *Wild Fox* or *Bullet* grape, and is utterly unfit for cultivation. The quality of the fruit seems to be wholly irreconcilable with the description of the introducer.

Your Committee deem the case a marked illustration of the value of Horticultural Societies. The public should understand that a new fruit which shrinks from an exhibition, and has no certificate of character, should be received with caution. It should be a rule among nurserymen, that no fruit shall be received into the trade, and disseminated, until it has been exhibited before some responsible Society, or indorsed by responsible horticulturists."

"PEARS.—Some new or little known varieties of pears, have been exhibited, principally at the Annual Exhibition. As these had in many cases been picked green, and when it was otherwise, as but a slight opportunity was afforded of testing their quality, no opinion of their value should or can be expressed. A mere enumeration of their names, with a very general description of their form, color, etc., is all that will be attempted; further trials must be made before coming to any decision as to the rank they should ultimately occupy. Among such were the following.

Willermoz. Large, handsome; smooth, green skin, with blotches or stripes of red in the sun; of a pyriform shape, rather drawn in at the stem and calyx.

Gideon Paridant. Small, smooth; yellow skin, nearly covered with russet; pyriform, with no depression or basin either at the stem or calyx,—a juicy, sweet, rich fruit.

Henri Van Mons. Medium size, smooth, green skin, with bright red in the sun; no depression at stem; calyx large, in a very small and shoal basin.

Auguste Van Kraus. Yellow skin, with blotches of russet; of a flattened, obovate form.

Colmar Artoisonet. Large; green, with red in the sun; of a flattened, obovate form.

La Inconstante. Rather small, pyriform shape.

Alphonse Kars. Small; green skin, with some russet,—pyriform.

Josephine Imperatrice. Small; green, with a little red in the sun; flattened obovate form, and long stem.

Kossuth. Large; green, with some red in the sun; pyriform, calyx open in a shoal basin.

Beurre Chateau. Rounded obovate; medium; rather rough, green skin, with some red in the sun; short, thick stem.

La Juive. Medium size; obovate; green skin; very slight depression at stem and calyx.

Alexandre Lambre. Rounded obovate; green; calyx large, open in a shoal basin.

Fulvie Gregoire, (not *Fulvie Nouvelle*.) Small; rounded; green, with some russet, red in sun; calyx prominent; stem little on one side.

St. Vincent de Paul. Of medium size, pyramidal form, yellow skin, red in the sun.

General Bosquet. Large; obovate, or elongated obovate; smooth, yellow skin, nearly covered with russet, and some red in the sun,—exceedingly attractive in appearance.

TRANSPLANTING WHITE CEDARS FROM THE SWAMP. This may be done in winter. Select those most exposed, so that the change to the windy upland may not be so great. Cut off the roots and sod in a circle from one to two feet from the trunk, according to the size of the tree. The best time is when the ground in the swamp is but little frozen. The freezing of the earth about the roots after removal does no harm, and the trees may be left on the surface where they are intended to be planted the next spring.

HOW TO MAKE EXTRA BRANCHES GROW ON PEAR TREES.—A writer in the *Virginia Farm Journal* states that he has succeeded in starting branches on his pear trees wherever he wishes a limb to grow. He says: "A careful examination will show plenty of dormant eyes, or knurls, on the stock. To produce a shoot, a slit or gash is made over the eye, and into the wood, with a knife or fine saw, which, by checking the flow of sap, starts these dormant eyes into life, and in three cases out of four a branch shoots forth."

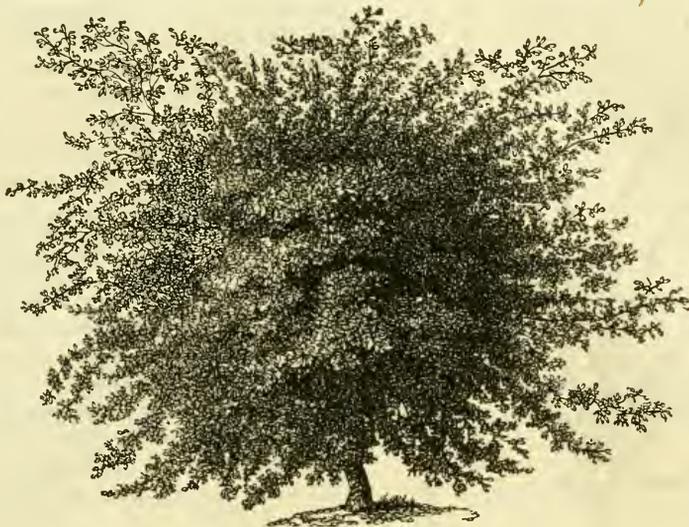
COLOR OF HOUSES—WINTER ASPECT.

EDS. GENESEE FARMER:—In landscape gardening, the color of the house is an important feature. White, the most common, presents too strong a contrast with the lawn and trees in the summer; and in the winter, when the ground is covered with snow, not enough. It gives the house a cold and dreary aspect at this season, when it should be warm and enlivening. The majority of people adorn their grounds and paint their houses with the single view to their agreeableness in the summer, and seem to be insensible to the fact that a landscape can be made as beautiful in winter as in the season of verdure. To do this, plant evergreens instead of deciduous trees, and give your house and buildings some neutral tint—for instance, a light stone color, umber, straw, or a light salmon; the latter of which contrasts very agreeably with the snow and evergreens.

Deciduous trees should not be neglected; but it is rarely that we see a mansion accompanied with too many of those of perpetual foliage. For shelter, the latter should be planted on the north of the dwelling—perhaps in a belt—and set singly, or grouped, in other places, as taste may direct. In this manner, the aspect will be agreeable at all seasons.

D. W. L.

West Medford, Mass.



CUT-LEAVED HAWTHORN.

THE HAWTHORN.

THE beautiful engraving we here present to our readers is that of the Cut-leaved Hawthorn (*Crataegus oxycantha laciniata*).

Neither the Common Hawthorn (*C. oxycantha*), nor its numerous varieties have been much planted in this country, and the beauties and merits of these trees are yet to become known and appreciated.

The Hawthorn attains a height of from twenty to thirty feet and spreads its branches laterally, forming a dense, low-headed tree; the leaves are of a dark shining green, and those of the variety which our engraving represents are deeply cut, or from five to seven lobed, while the Common Hawthorn is more generally three lobed—this feature thus forming the principal distinction, together with the habit of growth, which, in the Cut-leaved sort, is more slender and less robust than that of *C. oxycantha*.

In a plantation of ornamental trees, even a comparatively small one, the Hawthorn, in some of its numerous varieties, should not be omitted. Its dense head, at a height which overtops the shrubs and lies below the taller trees, fills a space to which few other trees are so well adapted; and its white blossoms in May or June, covering it like snow flakes, and the purple berries or haws which succeed, render it peculiarly attractive.

There are several varieties of *Crataegus*, natives of this country, which may also be employed with equal advantage in plantations.

The most valuable of these are *C. coccinea*, or Crimson-fruited Thorn; *C. crus-galli*, Cockspur

Thorn, and *C. cordata*, or Washington Thorn. All the above species grow from fifteen to twenty feet high, and when young can easily be transplanted.

GENESEE VALLEY HORTICULTURAL SOCIETY.

THE annual meeting of this Society was held February 6th.

The Treasurer's report shows a balance in his hands of \$179.41.

The following named gentlemen were elected officers for the present year:

President—JOSEPH HARRIS.

Vice Presidents—W. A. REYNOLDS, JAMES VICK, and L. A. WARD.

Secretary—C. W. SEELYE.

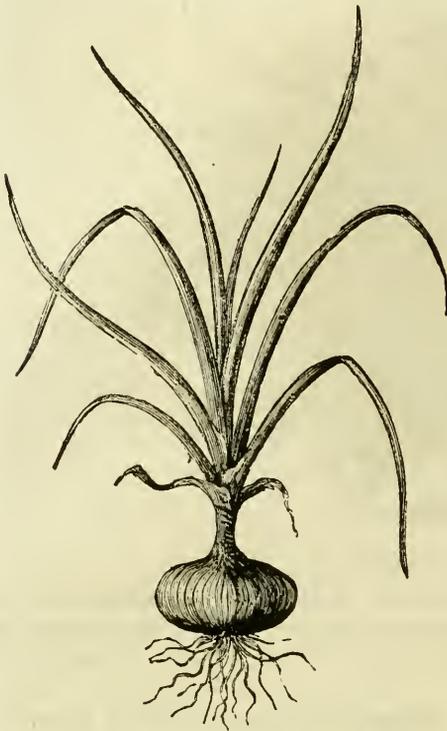
Treasurer—F. W. GLEN.

The President was authorized by the meeting to appoint the Standing Committees for the year.

Messrs. JOSEPH FROST, P. BARRY, and H. E. HOOKER were elected to serve on the Executive Committee.

RECIPE FOR PREVENTING RABBITS FROM BARKING TREES.—Bitter aloes, 6 lbs.; black sulphur, 2 lbs.; soft soap, 6 lbs.; water, *q. s.*; soot enough to thicken the soup, and a little lime to give it consistency.—WOGLOG, in *Gardeners' Chronicle*.

ANOTHER.—4 oz. soft soap, 6 oz. flowers of sulphur, to a gallon of water, as much quicklime as will bring the mixture to the consistence of paint; and by adding some fresh cowdung to the other ingredients, a greater body is given to the mixture, and it will only want renewing every two or three years. I have used the above mixture many years, and never found it to fail.—WM. TILLEY, in ditto.



ONIONS AND HOW TO RAISE THEM.

The onion (*Allium cepa*) is a vegetable deserving of more extensive culture than is generally the case here. Its use, when young, in salads, and when mature, in soups and stews, is eminently conducive to health. It requires rich, loamy soil, well manured (for which purpose hen dung or guano is best), and pulverized. The subsoil must not be retentive of moisture.

There are many varieties of onion in cultivation, and it may perhaps be thought invidious to recommend one kind in preference to another. As a general rule, the large onions are the mildest flavored, and the small ones the most pungent. Among the best seed kinds are the yellow Portugal, red Tripoli, and Strasburgh. In selecting seed, great care must be taken that it is the growth of the preceding summer, as seed more than a year old does not germinate well. A good plan to insure this, is for the cultivator to select the soundest and best onions of those kinds he wishes to raise seed from, and plant them in the month of May, each kind in a separate spot in the garden. They will produce an abundant supply of seed, which will ripen before the autumn frosts.

The earliest sown onions always prove the best in quality and productiveness: so land intended for their culture is best to be well prepared in the fall,

and the seed sown in drills as early in the spring as the land can be properly worked. The distance between the drills varies according to the kind of onion, but for field culture, they should be far enough apart to give room for an occasional horse-hoeing, in which case, about six lbs. of seed will sow an acre. After sowing, tread or roll the drills.

After the plants are well up, they may be hand-hoed and thinned out to an inch or two apart. In another month, they will require thinning again, which may be done as occasion serves, and the young onions put up in bunches and sent to market to be sold for salads. At the final thinning, they should stand six inches apart in the rows. Keep the ground clean of grass and weeds, either by hand or horsehoe. In either case, care must be taken to keep the loosened earth away from the bulbs, as the more they are upon the surface the larger they will grow.

In some parts of the country, they are subject to the ravages of the larvæ of the onion-fly. If they have attacked the crop, it becomes a difficult matter to get rid of them. Various remedies have been tried, but there is nothing so effectual as to pull up every onion containing a grub and burn it.

As soon as the early autumn frosts appear, it is time to gather the crop. Let the onions be pulled by hand, and, the tops being removed, they are spread out to dry, either in the sun or on the floor of some outbuilding. When thoroughly dried, they may either be stored in the cellar or kitchen loft, giving them an occasional turning; or hung up in nets.

THE TOMPKINS COUNTY KING APPLE.

EDS. GENESEE FARMER:—I have seen this apple for the first time this winter, in the Boston market. They were large to very large, somewhat resembling the *Spy*, but rather higher colored. The quality I regard as *best*—a little inferior to the *Baldwin*. It appears to be a fruit which ripens up well, better than the *Spy*, to which it seems somewhat allied. As an export apple, I should think it inferior to the *Baldwin*, on account of its tenderness. When grown in New England, however, the probability is that it will become firmer at the expense of size, but not inferior in quality. Time, only, can show. These apples were offered for sale at from \$3 to \$3.25 per barrel—very cheap for so a nice fruit; but good apples must be well known to bring a good price.

It is not to be expected that we shall very soon discover an apple so worthy of general cultivation as the world-renowned *Baldwin*, but those that fall a little below it should not be neglected. This, with the *Russet* and *Greening*, the *Hubbardston Nonsuch*, and the *Hunt Russet*, are our popular and reliable winter apples.

West Medford, Mass.

D. W. L.

Ladies' Department.

BED-ROOM DECORATION.

WE condense the following from the *Cottage Gardener*. It presents a pleasing picture which we should be glad to see more common. We think we can see woman's hand in it all.

"Oh, give him taste! It is the link
Which binds us to the skies—
A bridge of rainbows thrown across
The gulf of tears and sighs;
Or like a widow's little one—
An angel in a child—
That leads him to his mother's chair,
And shows him how she smiled."

To show you that the admission of vegetable life into bed-rooms is more in vogue than formerly, I will give you a rough sketch of an apartment which I was privileged to enter, and have permission to describe. The occupier of this apartment recognizes the principle, that

"Whatever cheerful and serene
Supports the mind, supports the body too."

At the end of the room is the window with balcony, from which spring clusters of blossoms of intermingled *Calystegia pubescens* and *Tropæolums*. These run up either side of the window on lattice-work. From an ornamental *terra cotta jardinette* rise plants of *Lysimachia nummularia*, covering a wire-work screen with their golden blossoms. Fronting the window, are the toilette-table, glass, etc. In the first break on the left hand side of the room is the washhand-stand; over this engravings and pictures in oil colors, etc., etc. The middle projection contains a gas stove with flue entering the chimney; above this the mantel-piece. At each end is a case of ferns and mosses arranged amid rockwood, colored scenery at the back imparting an additional charm.

Over one of these cases we find the lines—

"The green and graceful fern,
How beautiful it is!
There's not a leaf in all the land
So beautiful, I wis.

"Have ye e'er watch'd that ball unfolding,
With each stem and leaf wrapp'd small,
Coil'd up within each other
Like a round and bairy ball?"

"Have ye watch'd that ball unfolding,
Each closely nestling curl,
And its fair and feathery leaflets,
Their spreading forms unfurl?"

"Oh, then most gracefully they wave
In the hedges like a sea:
And dear as they are beautiful
Are those fern leaves to me."

Over the other case—

"The tiny moss, whose silken verdure clothes
The time-worn rock, and whose bright capsules rise,
Like fairy urns, on stalks of golden sheen,
Demand our admiration and our praise
As much as cedars kissing the blue sky,
Or Krubal's giant flower. God made them all,
And what He deigns to make should ne'er be deem'd
Unworthy of our study and our love."

Between the cases is a duplex statue in plaster, and amid the centre ornaments a boquet of choice flowers.

Over the mantel-piece are views of the localities in which the ferns were collected—Llangollen Vale, Tenby, etc. Above, up to the ceiling, are photographic and lithographic portraits, surmounted by the Art Union head of Christ.

In the next break we find pictures printed in colors, and a heating flue in connection with a system of hot-water apparatus. Lastly, next the door is a table with Wardian case, containing ferns and mosses, many of them exotic.

"Of all modes of enlivening the aspect of an apartment, there is, perhaps, none more pleasing than the sight of plants and flowers suitably arranged and distributed. The enjoyment and instruction they afford are within the reach of all; the poor may partake as well as the rich. Great means and appliances are not needed. To the thoughtful mind, the contemplation of the phenomena of vegetation is a constant source of interest." Especially is this so to the Christian. Whatever he finds

"Of beautiful or grand
In nature, from the broad, majestic oak
To the green blade that twinkles in the sun,
Prompts with remembrance of a present God."

—*Horticulturist*.

MAKING BUTTER IN WINTER.

EDS. GENESEE FARMER:—In common with many of my neighbors, I have experienced much difficulty this winter, in getting butter to "come" in churning. We had usually warmed the cream by the aid of a common thermometer, to 55, 60, 65, and 68 degrees of Fahrenheit, without success, as well as having churned it for several hours in one of those zinc churns having a marked thermometer attached to them. At length I procured a small zinc thermometer, which the manufacturers now make unattached to the churn, and when I saw that the degree marked upon it was 62, I suspected at once the cause of our repeated failures. We then warmed to the exact temperature of 62° some cream which had been previously churned for four or five hours, and after churning it about ten minutes in a small stone plunge churn (also warmed), butter of excellent quality was obtained. We have since had no trouble in bringing our cream to butter.

Canada West.

A FARMER'S WIFE.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

FANCY FROTH FOR BLANC MANGE OR CREAMS.—Beat the whites of four eggs to a froth, then stir in half a pound of preserved raspberries, cranberries, or strawberries. Beat the whole well together, and then pour it over the top of your creams or blanc mange.

CREAM CUSTARD.—Mix a pint of cream with one of milk, five beaten eggs, a tablespoonful of flour, and three of sugar. Add nutmeg to the taste, and bake the custards in cups or pie-plates in a quick oven.

LEMON JELLY.—Put on a slow fire an ounce of isinglass pulled into small pieces and rinsed, a pint of water with the rind of six lemons. Stir it constantly until dissolved. Then add a pint of lemon juice, and sweeten it to the taste with nice white sugar. Boil the whole for four or five minutes, color it with the tincture of saffron, and let it pass through a flannel bag without squeezing it. Fill your jelly glasses with it when partly cool.



New Advertisements this Month.

Spring Garden Seeds—J. M. Thorburn & Co., New York.
 Flower Seeds by Mail—do do do
 Pear Seed—do do do
 Who can Equal it—G. Westinghouse & Co., Schenectady, N. Y.
 Beautiful French Gladiolus—J. M. Thorburn & Co., New York.
 Wethersfield Seed Sower—Rodney Kellogg, Hartford, Ct.
 Hubbard Squash—B. K. Bliss, Springfield, Mass.
 Bell Cranberry Plant—F. Trowbridge & Co., New Haven, Ct.
 New and Valuable Squashes—J. M. Thorburn & Co., New York.
 Rare and Beautiful Flowers—B. K. Bliss, Springfield, Mass.
 The Perfected Tomato—J. M. Thorburn & Co., New York.
 Fruit and Ornamental Trees for the Spring of 1860—Ellwanger & Barry, Rochester, N. Y.
 Lawton Blackberry—William Lawton, New Rochelle, N. Y.
 Bee-Keeping Explained—M. Quimby, St. Johnsville, N. Y.
 Potato Oats and Seed Potatoes—P. P. Bradish, Batavia, N. Y.
 Farm for Sale—Elijah Williams, Wallingford, Ct.
 Farmers Read—Wm. W. Eggleston, Albany, N. Y.
 New and Rare Flower Seeds—J. M. Thorburn & Co., New York.
 The Lawton Blackberry—Wm. Lawton, New Rochelle, N. Y.
 Queen's Seedsmen—Peter Lawson & Son, Edinburgh and London, Great Britain.
 Five Splendid Strawberries—H. E. Hooker & Co., Rochester, N. Y.
 Isabella and Catawba Grape Vines—R. T. Underhill, M. D., New York.
 Japan Apple-Pie Melon—B. K. Bliss, Springfield, Mass.
 Year Book of the Farm and Garden—A. M. Spangler, Philadelphia, Pa.
 The Farmer and Gardener—A. M. Spangler, Philadelphia, Pa.
 Hamilton Nurseries—W. Holton, Hamilton, C. W.
 New American Style of Architecture—Saelzler & Volk, New York.
 Stocks for Nurserymen—E. Y. Teas, Richmond, Indiana.
 Old Rochester Nurseries—Samuel Moulson, Rochester, N. Y.
 Hubbard Squash Seed—Jas. J. H. Gregory, Marblehead, Mass.
 Grapes—C. P. Bissell & Salter, Rochester, N. Y.
 Geneva Nursery—W. T. & E. Smith, Geneva, N. Y.
 Marblehead Drumhead Cabbage—James J. H. Gregory, Marblehead, Mass.
 New and Choice Vegetable and Flower Seeds—Lemuel Norris, Windsor, Ohio.
 From \$75 to \$150 per Month—D. L. Milliken, Brandon, Vt.

NOTES ON THE WEATHER FROM JANUARY 15TH TO FEBRUARY 16TH, 1860.—The Notes on the preceding month closed with the warmer week ending with January 15th. The snow had melted; the sleighing ended on the 10th, and did not return in the month, nor in the next fortnight after. The weather, however, has been pleasant as a whole; the ground frozen, and the wheeling fine.

In the last half of January the average heat was 30.7°, or 6° above the mean for 23 years. On January 31st the cold was 8°, and the lowest in that half of the month.

The average heat of the whole month was 29.8°, more than 4° above the mean for 23 years.

Snow fell in small quantities, but the water of the month was only 1.042 inch, a very small quantity. Still, there seemed to be water enough except in some cisterns.

The month was a little warmer than that of 1859, which was called uncommonly warm, though it had one day on which the thermometer was 12° below zero, or 16° colder than one last January, which began and ended in cold weather.

February began with those cold days, and on the 3d the cold was 4° below zero, since which 8° above cypher has been the coldest, on the 10th. Some rain and snow fell in the first 14 days; but not enough for sleighing. On the 15th fell about 5 inches of snow, with a little rain at evening, then colder, and sleighs began to move.

In this half of February the average heat was 22.7°, or 2° below the mean for 23 years. The water fallen is much below the average.

The winter so far, having such uniformity and so little thawing of the surface must have been favorable to our winter wheat.

The gale of Thursday afternoon, the 9th, to Friday noon, was very extensive, and along the Atlantic coast was severe and did much damage in many places. It was from the West and S. of West, and was followed by three days of colder weather. So far the weather has been favorable, and the cold has not injured the buds of peaches and grapes; we may expect they will escape injury in the remaining part of the winter.

NEW YORK STATE AGRICULTURAL SOCIETY. — The Annual Meeting of this Society was held in the city of Albany on the 8th and 9th days of February last. A letter was read from citizens of Elmira, applying in behalf of that place as the location of the next Show, and offering to meet in all respects the Society's usual requirements. The usual committee of twenty-four, to nominate the officers for the ensuing year, and recommend the place for holding the next annual Fair, then withdrew for consultation, and after a brief and harmonious session, returned with a report recommending Elmira as the location of this year's Fair, and proposing for election the following officers, who were duly balloted for and unanimously chosen:

PRESIDENT—BENJ. F. HUNTINGTON, Oneida county.

VICE PRESIDENTS.

First District—JOHN JAY, of Westchester county.

Second—CHARLES S. WAINWRIGHT, of Dutchess.

Third—HERMAN WENDELL, of Albany.

Fourth—CALVIN J. HULBURD, of St. Lawrence.

Fifth—JOHN BUTTERFIELD, of Oneida.

Sixth—FRANCIS M. KOTCH, of Oswego.

Seventh—JAMES O. SHELTON, of Ontario.

Eighth—T. C. PETRES, of Genesee.

Cor. Secretary—B. P. JOHNSON, of Albany.

Rec. Secretary—ERASTUS CORNING, Jr., Albany.

Treasurer—LUTHER H. TUCKER, of Albany.

Executive Committee—Hon. A. B. Dickinson, of Steuben; L. Chandler Ball, of Rensselaer; Chas. P. Wood, of Cayuga; Ezra Cornell, of Tompkins; and Samuel T. Thorne, of Dutchess.

PATENT OFFICE SEEDS.—The Commissioner of Patents gives notice that, owing to the reduced appropriations of the last Congress, he will be unable to supply seeds, as heretofore. Those who have written for them, either to the Patent Office or to members of Congress, will therefore understand why their requests are not complied with.

At the late annual meeting of the United States Agricultural Society at Washington, MARSHALL P. WILDER, of Mass., was voted the "grand gold medal of honor," as the founder, First President, and constant patron of the Society. This is the largest and most valuable medal struck in America.

APRIL PREMIUMS.—Our friends should not forget that we offer *two hundred and thirty-five dollars* in Cash Premiums, to be awarded to the greatest number of subscribers sent in by the 15th of April. So far as we have heard, very few are competing for these Premiums, and they will undoubtedly be taken by very small clubs.—There is not one of our readers who could not take one of the largest of these premiums.

Last year we offered twenty prizes, amounting to \$211. These prizes were taken by clubs of 23, 24, 25, 26, 29, 30, 34, 36, 43, 46, 53, 54, 55, 65, 70, 73, 74, 95, 123, and 141.

This year there are twenty-one prizes, amounting to \$235. (See last page of this number.) There is yet abundance of time to compete for these Prizes.

Some of our agents in distant places think they stand a small chance to take our premiums. This is not the case. There is no section of country where an active friend of the cause might not easily obtain subscribers enough to take the highest prize. Our April premiums last year were taken by persons residing in Michigan, Indiana, Ohio, Pennsylvania, New York, Canada West, and Utah Territory.

THE busy season of the farmer and gardener is approaching, and no one should be without an agricultural and horticultural paper. We have the testimony of many of our readers, that a single hint in some number of the *Genesee Farmer* is worth more to them than a whole year's subscription. Unlike a miscellaneous paper, it is convenient to preserve, and is always on hand for reference. If you, kind reader, have any neighbors who do not take a good agricultural paper, tell them that the *Genesee Farmer* is what they need, and so marvelously cheap that all can afford to take it. If you wish them, we will send you a few copies for gratuitous distribution. We aim to make the *Farmer* worthy of your countenance and support—a paper that you will not be ashamed to recommend to your friends.

ADVERTISEMENTS.—We have more advertisements this month than we desire, and have been obliged to omit several. Still, they are all of interest to our readers. We rigidly exclude patent medicines, and all deceptive advertisements. There is no better medium of advertising than the *Farmer*. It has large lists of intelligent readers in every State and Territory, and in the Canadas, Nova Scotia and New Brunswick. Our friends, in writing for anything advertised in our columns, would oblige us by saying that they saw the advertisement in the *Genesee Farmer*.

A RARE OFFER.—Five numbers of the *Rural Annual* and *Horticultural Directory* have now been published, viz: 1856-7-8-9 and '60. We will send the whole series for *one dollar*, prepaid, by mail to any address. These five volumes contain a fund of valuable information on all horticultural and agricultural subjects, to be obtained nowhere else for double the money.

If any of our agents have not received the *Rural Annual*, or extra copies of the *Farmer*, to which they are entitled, (see list of specific premiums on last page,) we will most cheerfully send them. In the hurry of mailing they may, in some instances, have been forgotten, but we are always desirous to correct them and all other mistakes.

ADDITIONS CAN BE MADE TO CLUBS at any time, at the club rates. After you have got a club of eight subscribers, you can send on the names of one or more subscribers at 37½ cents each. If the members of the club have not had the *Rural Annual*, they can still have it at the club rates. In other words, we will send you eight copies of the *Annual* for one dollar.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1860.—Every one interested in the cultivation of the soil—in fruit or ornamental trees, in the garden, orchard or farm—should have a copy of this work. It will be sent, prepaid, by mail for 25 cents. Address JOSEPH HARRIS, Rochester, N. Y.

WE are now printing another large edition of the *Rural Annual* and *Horticultural Directory* for 1860, and can supply all orders the day they are received. All our agents can have the work for old and new members of their clubs at the lowest club rates, or eight copies for one dollar (12½ cents each.)

THE press on our columns is still so great that we are compelled to leave out many valuable communications, illustrations, inquiries and answers, and much other matter. Our friends must bear with us. We shall find room for them bye-and-bye.

THE GENESEE FARMER TO ENGLAND.—In reply to several inquiries on the subject, we would say that we will cheerfully send the *Genesee Farmer* to Great Britain, on the receipt of the subscription price, together with 24 cents for the postage.

THE *Genesee Farmer* and *Rural Annual* is sent in clubs of eight for fifty cents the two! Those who have not had the *Rural Annual* for 1860, can still avail themselves of this offer.

WE now stereotype each number of the *Genesee Farmer*, and back numbers of this year can always be furnished.

Inquiries and Answers.

LARGE EARS OF CORN.—I would like to know from the subscribers to the *Genesee Farmer* how large corn ears they have grown. Last year I had some ears that weighed one and a half pounds, measuring nine inches in circumference. Some had ten, eleven and twelve hundred grains on an ear. I had one ear of corn that had twenty six rows, and fourteen hundred and fifty-seven grains. Think this ear hard to beat.—MARTIN SMITH, *Hunterdon Co., N. J.*

BARK-LOUSE—LAWTON BLACKBERRY—PEARS.—(O. BUCHNER, *Clear Creek, C. W.*)

The best remedy for the bark-louse on your Apple trees is to scrub the trees thoroughly with a stiff brush and soap-suds in the month of June, when the insects are young; we would advise you not to make use of tar and oil for that purpose.

The seeds of *Lawton Blackberry* would, probably, not produce their kind.

The five following named Pears are among the best, as Summer and Fall varieties, to cultivate on Pear stock *Bloodgood, Bartlett, White Doyenne or Virgalieu, Flemish Beauty* and *Sheldon*.

HIGH BUSH CRANBERRY—MEDLAR—BERBERRY—BLUEBERRY—SPANISH CHESTNUT.—(J. W. HELM, Paris, Mo.)

The *High Cranberry* (*Viburnum oxycoccos* of PURSH, and *V. opulus*, *B. Americana* of TORREY and GRAY, and other modern botanists), is a native of the Northern United States and British America. The common Snowball of our gardens (*V. opulus*, *B. roseum*), is closely allied to it, botanically.

The High Cranberry is a handsome shrub, attaining a height of eight or twelve feet, and in its wild state is to be found in woods and borders of fields. It bears clusters of white flowers in June, which are succeeded by red, acid fruit, resembling the Common Cranberry in flavor, for which it is also a good substitute.

The fruit ripens late, and remains upon the bush after the leaves have fallen.

This plant is well worthy of cultivation, both for ornament and for use, and will adapt itself to any good garden soil.

The *Medlar* (*Mespilus Germanica*), is allied to the *Crataegus* or Thorn, *Pyrus*, the Apple and Pear order, *Amygdalier*, the Shadberry or June Berry, and many others.

The fruit is from an inch to an inch and a half in diameter, of a greenish color, which turns to a dull brown when mellow.

There are several varieties in cultivation, but none of them are really valuable, except, perhaps, for specimen trees.

The fruit must be left on the tree as long as possible in the fall; or, if picked too soon, it will afterwards be apt to shrivel. "Spread them singly upon sand, the calyx or open side downwards, and dipping the stalk end in a strong brine of common salt and water, which is said to check the occurrence of moldiness." They are edible only when just on the point of complete dissolution.

The tree is somewhat ornamental, and has great numbers of white flowers in the spring.

The soil most suitable for it, and its training and pruning, should be similar to that of the Pear.

Berberry, or *Barberry* (*Berberis vulgaris*).—This is a beautiful and useful shrub, of which there are several varieties in cultivation, and it cannot be too generally planted. We cannot now go into an enumeration of the different varieties, or their respective merits. The Common Red is probably the most valuable for its fruit, which is used for a preserve, for making into jelly, and as an ornamental pickle. The flowers are a bright yellow, and the bush, both when in blossom and in fruit, is very handsome.

It prefers a light or gravelly soil, and is of the easiest cultivation, requiring only such pruning as is necessary to keep it in good shape.

Blueberry.—Several varieties of the *Vaccinium* are called Blueberry. They belong to the same natural order as the Huckleberry or Whortleberry.

The common low Blueberry (*V. Pennsylvanicum*), is a low under-shrub from six to twelve inches in height, growing in dense patches in thickets and pastures, in the Eastern and Middle States and Canada; bearing large, blue, sweet and nutritious berries. We know nothing of its value as a cultivated plant, but observe they are advertised for sale in some of the catalogues of French nurseries.

Trees of the *Spanish Chestnut* can be obtained here at the nurseries, but the nuts are not kept for sale.

MORGAN HORSES.—(W. M. DOUGLAS, C. W.) These horses are highly esteemed here, principally for their speed and showy action. They make excellent roadsters and carriage horses, but we should think them rather light for farm work, especially where the soil is heavy. We believe the introduction of Morgan blood among the Canadian horses would prove beneficial. You can obtain much information on the subject, by consulting D. C. LINDSLAY'S work on "Morgan Horses."

THE BEST CROP FOR AN OLD ORCHARD SOD.—(HENRY HOUPPE, Tompkins Co., N. Y.) Oats, or corn, if not too shady for the latter, would do well; as would potatoes. Spring wheat would not answer. We should prefer a good summer fallow to clean and mellow the land, and then seed it with timothy and clover in August. Buckwheat would not ripen well, but would answer to be plowed under. Vetches, for soiling, would answer better, perhaps, than anything else.

RYE AS A GREEN MANURE.—(W. S. D., Upper Tract, Va.) We do not think it is a good practice to sow rye for the purpose of enriching the soil for other cereals. Peas or clover would be much better.

TILE MACHINE.—(C. GRANT, Kent Co., C. W.) F. M. MATTICE, of Buffalo, N. Y., makes an excellent machine for making underdraining tiles.

CROPPING DWARF PEAR ORCHARDS.—Is a crop of melons and then one of turnips in the fall, too exhausting on the soil, in a young dwarf pear orchard? The trees have been planted two years, each year manured and plowed in the spring, then planted in melons, one hill in the center between the trees. They are plowed the last time when the vines have nearly covered the ground, and turnip seed sown. One hundred feet square, holds one hundred trees, and the two years past it has produced melons enough for a family of eight persons, all we use and some for the neighbors, and in the fall sixty bushels of turnips after being topped. Will you or some of your correspondents please answer through the *Farmer* if this course is advisable? It will more than pay the expense of cultivating the trees.—A. HARROLD, *Sugar Grove Farm*.

With the annual manuring and good cultivation which our correspondent gives his orchard ground, we think he may safely crop it as he does; the growth of the trees themselves would soon indicate the propriety or impropriety of any mode of tillage. After the trees become larger and yield annual crops of fruit, it will no doubt be found best to allow them the exclusive use of the ground without, however, omitting the manure and cultivation.

♦♦♦

Notices of Books, Pamphlets, &c.

THE NEW AMERICAN CYCLOPEDIA: A popular Dictionary of popular Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Vol. 5. Fug—Hay. New York: D. APPLETON & Co. 1859. F. R. KALL agent for Rochester and vicinity. Price \$3 per volume.

The following books are for sale by STEELE, AVERY, & Co., of this city.

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 8 and 9. New York: D. APPLETON & Co. Price 15 cents per number.

A POPULAR HISTORY OF THE UNITED STATES OF AMERICA, from the Discovery of the American Continent to the Present time. By MARY HOWITT. Illustrated with numerous engravings. In two volumes. New York. HARPER & Bros. Price \$2.

SEVEN YEARS, and other Tales. By JULIA KAVANAGH, author of "Nathalie," "Adele," etc. Three volumes in one. New York: D. APPLETON & Co. Price 50 cents.

HISTORY OF PETER THE GREAT, Emperor of Russia. By JACOB ABBOTT. With engravings. New York: HARPER & BROS. Price 60 cents.

THE DIARY OF A SAMARITAN. By a Member of the Howard Association of New Orleans. New York: HARPER & BROS. Price \$1.

SWORD AND GOWN. A Novel by the author of "Guy Livingstone." New York: HARPER & BROS. 1859. Price 25 cents.

LOSS AND GAIN, OR MARGARET'S HOME. By ALICE B. HAVEN. New York: D. APPLETON & Co. Price 75 cents.

STORIES OF RAINBOW AND LUCKEY. By JACOB ABBOTT. New York: HARPER & BROS. Price 50 cents.

HARRY'S SUMMER IN ASHCROFT. With illustrations. New York: HARPER & BROS. Price 50 cents.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
ROCHESTER, N. Y., Feb. 18, 1860.

The markets for Flour and Wheat have shown but little animation since our last report; on the contrary, they have been marked by a general and prevailing tendency to lower prices. An occasional exception to this general feature has been manifest in a temporary effort to produce an excitement. Such effort, however, has been responded to by no indications of confidence. The current rates are above an average for this country. A reliable advance, therefore, is not probable, unless it should become apparent that there is a deficiency, in some quarters, of sufficient importance to take off the surplus which may exist here, and a part of that which would otherwise be taken for domestic consumption. The export trade, though considerably in advance of what it was last year, is still insignificant in amount. Were foreign orders, to any extent, awaiting execution, holders would virtually prevent the fulfillment of such orders by increasing firmness. That England would take a large quantity of breadstuffs from America at a reasonable price, between the present time and next harvest, may be regarded as almost certain. That a steady demand, from that quarter, will exist in the face of a constantly increasing tendency to advancing prices, is very dubious. An effort has been made to create an impression that a material advance may be expected at no distant day, and farmers—especially in England—have been advised to withhold their wheat. The expediency of such a course may well be questioned. Such efforts, however, seem to fail of effecting the accomplishment of the object sought, as the markets have been well supplied and prices have been barely sustained.

Coarse Grain is generally lower, but tolerably steady at the decline. There is a fair demand for Barley, with a steady market, Rye is rather dull, with a large supply. Corn steady, with a moderate demand. Oats are inactive, with a large supply, and limited inquiry. The demand for White Beans is fair; but, with a more liberal supply, the market is lower. Canadian Peas are over and dull.

The markets in England, for Wheat and Flour, are very inactive, and sales are effected with difficulty unless a decline be submitted to. The stock of foreign Wheat and Flour in store at the present time, is largely in excess of what it was at the same time last year, and there is still a large quantity of old Wheat in farmers' hands. Clover seed, both red and white, is very firm—the latter specially—at improved rates.

The demand for Provisions is good, and the market is higher. There has been an active speculative movement in Pork, which is still quite brisk. Beef, with a reduced stock, and a fair demand for both local trade and shipment, is very firm. Bacon has improved, and is active, with light receipts. Cut Meats are steady and in good request. Lard has advanced, with less arriving, and a good local and export demand. Dressed Hogs have improved, and are quite active at the advance. Butter is in fair demand, with a good supply. Cheese is reduced in stock, and is worth more money

The trade in Beef Cattle is more active at better rates, consequent on a short supply. There is no improvement in quality, but rather the reverse. Sheep and Lambs are worth more, with a limited supply. The demand for Swine is active, influenced by the firmness of Provisions, and the inquiry for fresh pork.

Wool is steady and firmer, but not active. The demand is quite limited; but, for all desirable qualities, is fully equal to the supply.

ROCHESTER MARKET. — Feb. 18.

FLOUR—Transactions limited to the local trade, with a dull market. Superfine, \$5.00@5.50; extra, \$5.75@6.50. Buckwheat Flour \$1.75 per 100 lbs.

GRAIN—Wheat steady and quiet. White, \$1.35@1.40; red, \$1.12@1.15. Corn. 65c. Oats. 35c. Barley, 62½c. Rye, 72c@75c. Buckwheat, 40c@45c. White Beans, 75c@90c.

SEEDS—Clover, \$4.50@4.75. Timothy, \$2.25@2.50. Flax, \$1.30.

PROVISIONS—Mess Pork; \$17@18 per bbl. Hams—smoked, 10c@12c. Shoulders do, 8c@10c. Lard, 11c@12c. Butter—fresh roll, 16c@17c; do. firkin, 15c@16c. Cheese, 8c@10c per lb. Eggs, 17c per dozen. Chickens, 8c@9c per lb. Turkeys, 10c@11c per lb. Potatoes, 81c@40c. Apples, 38c@50c; dried do, \$1.12@1.25 per bushel. Beef, 5½c@6½c per lb. by the side. Dressed Hogs \$7.25@8.75 per 100 lbs.

CATTLE MARKET—Beef cattle, \$3.50@5.00, live weight. Sheep, \$4@7 each. Calves, \$4@7 each.

HIDES—Slaughter, 5½c. Calf skins, 10c per lb. Sheep pelts, \$1.25@1.62½ each. Tallow, 8c per lb.

HAY—\$12@18 per ton.

WOOL—No sales—worth 40c@50c per lb.

NEW YORK MARKET. — Feb. 15.

FLOUR AND MEAL—The market is less active. State superfine, \$5.00@5.05; \$5.20@5.30 for extra do, and low grades of Western. Ohio round hoop extra, do, \$5.75@5.90. Ohio, St. Louis and Genesee extras range from \$5.60 to \$7. Canadian Flour, \$5.40@5.75 for common to choice extra. Southern Flour is heavy. Baltimore superfine, \$5.40@5.70; and \$5.70@6 for the better grades. Rye Flour steady at \$3.60@3.40 for fine and superfine. Corn meal lower. Jersey, \$3.40. Brandywine, \$4.50. Buckwheat flour, \$1.62½@1.75 per 100 lbs.

GRAIN—Wheat more active. White Southern, \$1.50@1.55. do Western, \$1.40@1.50. do Canada, \$1.37@1.42; red Southern, \$1.23@1.29; do Western, \$1.30; Milwaukee and Canada club, \$1.18@1.20. Chicago spring, \$1.19. Rye firm at 85c@87c. Barley 75c@85c. Corn, 75c for all grades of new white and yellow. Oats firm at 40c@41c for Jersey, Delaware, and Pennsylvania; 45c@46c for State, Western, and Canadian. Canadian Peas, 7½c@8c. White Beans, \$1.10@1.15.

SEEDS—Clover, 7½c@8½c per lb. Timothy scarce and nominal. Flax, \$1.50@1.55 for rough American. Red top, \$2.50@3.02½ per five bushel bag.

PROVISIONS—Pork steady, but not very active; old Mess, \$17.50; new do, \$18.37½; old Prime, \$12.50; new do, \$14.50. Beef is in fair demand and firmer at \$5.25@5.50 for country mess, and \$4@4.50 for prime do; \$2.25@2.10 for packed Western; \$10.75@11.50 for extra mess. Beef hams, \$13.75@13.50. Bacon 10½c. Cut meats steady and in fair demand. Hams, 9c@9½c. Shoulders, 6½c@6½c. Green meats steady. Dressed Hogs are in demand at 17½c@18c per lb. Lard is dull at 10½c@10c. Butter is plenty—Ohio, 11c@14c; State, 12c@15c for fair to prime; choice, 20c@22c. Cheese in fair demand at 9c@11½c per lb. Potatoes—Mercers' best, \$1.75@2.00; Peachblows, \$1@1.35; Dykmans, \$1.38@1.50; James, Konnd Pinkeyes, Western Reds, and Jackson Whites, \$1.25@1.33 per bbl. Nova Scotia, 50c per bushel.

CATTLE MARKET—Beef cattle more active. First quality, 10c@10½c; medium, 8c; ordinary, 7c@8c; extra good, 10½c@11½c per lb. Live calves 7c@8c per lb. live weight. Sheep and Lambs, \$25@35.75 per head. Corn fed Hogs, 6½c@6½c; still fed 6c@6½c per lb. gross.

PHILADELPHIA MARKET. — Feb 19.

FLOUR AND MEAL—Market quiet. The demand is chiefly from local trade, there being but little inquiry for shipment. Superfine, \$5.75; extra and fancy, \$5.75@6.75, as to quality. Rye Flour dull at \$4.25. Corn Meal, quiet at \$3.75.

GRAIN—Wheat quiet with little offering. White, \$1.45@1.50; red, \$1.35@1.38. Rye steady at 92c@93c for Pennsylvania. Corn firm at 76c@77c for new yellow. Oats dull at 44c@45c for Pennsylvania. Barley mall. 90c@95c; Barley, 85c.

SEEDS—Clover, \$5.25@5.50, with but little prime offering, Timothy and Flax steady and without change.

PROVISIONS—Mess Pork, \$18@18.25. Mess Beef, \$14@15 per bbl. Bacon inactive. Hams, 11½c@12½c. Sides 10c; Shoulders, 8c; Green Hams, 10c@10½c; Sides, 9c; Shoulders, 7c. Lard, 10½c@11½c for bbls, and 11½c@12c for kegs. Butter dull at 14c@16c for roll, and 10c@12c for packed. Cheese unchanged. Eggs unsettled at 17c@23c per doz.

FRUIT—Market quiet with no change to notice.

WOOL—Market very inactive. Pulled, 35c@40c. Fleece, 40c@55c. Smyrna, 14c@17c per lb.

BUFFALO MARKET.—Feb. 17.

FLOUR—Market dull with but few transactions, except, for retail. State extra, \$4.90@5; extra Canadian, \$4.80@5.10; Ohio extra, \$5.50; Indiana and Ohio double extra, \$5.75@6.25.
GRAIN—Wheat market very quiet; scarcely any sales. Canada Club, \$1.02. Corn 61c@64c. Rye, 75c@80c. Barley, 65c@70c. Oats, 35c. Peas, 64c, but inactive.
SEEDS—Clover active at \$4.75@5. Timothy, \$3@3.25. Flax, \$1.35.
PROVISIONS—Prime Mess Pork, \$17. Dressed Hogs, \$6.75@7.12 per 100 lbs. Lard, 10½c. Hams, 10c@ plain, and 11c for sugar cured. Shoulders, 7½c. Beef hams, 9½c. Butter, 16@15c per lb. for State dairy.

CHICAGO MARKET.—Feb. 14.

FLOUR—Market inactive. White winter extra, \$5.61; spring extra, \$4.70@4.87½ for favorite brands.
GRAIN—Wheat quiet but firm. We quote red winter, \$1.10; No. 2 spring, 96c@1; No. 1 do., \$1.01@1.02; Iowa club, \$1.03@1.05. Corn, declined—quoted at 39@43c, according to quality. Barley 6c. Rye dull at 78c. Oats firm at 38c@39c.
SEEDS—Timothy, \$2.25@2.80. Clover, dull at \$4.62½. Hungarian grass in good demand at \$1.
PROVISIONS—Mess Pork quiet at \$15.50@17.25. Bulk meats active at 5½c for green sides; 6½c for packed shoulders; 5½c per lb. for green hams. Dressed Hogs \$6.12@6.85. Lard, 10½c. Butter plenty at 11c@14c for fresh, and 10c for Arkin. Cheese unchanged. Eggs 16c@17c per dozen. Potatoes 40c@45c per bushel for Neshannocks and Pinkeyes.
FRUIT—Green Apples, \$2.50@3.50 per barrel. Dried Peaches, 11½c@12c for unpared, and 16c@18c for pared. Dried Apples 7½c per lb.
CATTLE—Beef Cattle, \$2.25@3.75. Live Hogs, \$3.50@5.30 per cwt. gross.
HIDES—Green, 7c; green salted, 7½c; dry salted, 10c@12c; dry flint, 13½@14c. Pelts, 90c@1.20. Tallow, 10c per lb.
HAY—Prairie, \$3 loose; Timothy baled, \$12 per ton.
WOOL—Nothing doing.

CINCINNATI MARKET.—Feb. 15.

FLOUR—Heavy; superfine, \$5.60@5.70; extra, \$5.75@5.90.
GRAIN—White Wheat, \$1.30@1.33; red, \$1.25@1.28. Corn shelled rather lower, closing at 58c@58c. Rye dull at 96c. Barley unchanged at 58c@68c for spring, and 65c@65c for fall. Oats firm, but lower, at 47c@48c.
PROVISIONS—Mess Pork firm. Holders ask \$17.75. Prime city \$14@14.50. Bulk meats held at 6½c@5½c Green hams, Sc. Bacon 7½c@9c. Lard rather higher, and held generally at 10½c. Butter dull and lower. Central Ohio, 11c@14c; Western Reserve, 14c@15c. Cheese active and a shade higher, at 9½c for Western Reserve, and 11c for imitation English dairy. Eggs, large supply at 11@12c per dozen. Green Apples in moderate demand at \$2.50@3.50 from store. Potatoes in fair demand at \$2 for prime, per barrel.
FRUIT—Dried Apples dull at 6½c@7c. Dried Peaches scarce at 12@14c per lb. Cranberries \$13@15 per barrel.
CATTLE AND HOGS—Beef Cattle in fair demand, prices varying from \$2.50 to \$3.75 per 100 lbs. gross. Sheep, \$2.50@3.50 per head. Hogs scarce and in demand at \$5.75@6.00 per 100 lbs. gross.
HIDES—Active. Flint, 13c@14c; dry salted, 12½c@13c; green salted, 7c@7½c per lb. Sheep pelts, 75c@1.00 each. Tallow, 10c@10½c per lb.
HAY—Active, and prices firm at lower rates. Prime pressed Timothy, \$18.00@19.00 per ton.

TORONTO MARKET.—Feb. 16.

FLOUR—Quiet, at \$4.40 for Superfine; \$4.30 for fancy, and \$5.20@5.30 for extra.
GRAIN—Wheat buoyant at \$1.22@1.27 for fall; 98@97c for spring. Barley nominal at 66c@65c. Rye at quiet 70c@75c. Oats scarce at 35@37c. Peas in request at 55@57½c per bushel.
PROVISIONS—Pork in demand at \$6.12½@6.50 per 100 lbs. Fresh Butter, 18c@20c; tub dull at 13@15c per lb. Cheese, 10@12c per lb for American. Eggs, 10c per dozen. Potatoes plenty at 3c@3½c per bushel.
SEEDS—The trade is just commencing. Timothy is scarce, the late spring frosts having destroyed much of the seed, rendering importation necessary to supply the deficiency. Rates are yet unsettled, but lots are held at \$2.50@3 per bushel. Clover seed—Fair supply at \$5.75@6.25 per bushel.
HAY—In active demand, for consumption and for speculation, and the range is from \$16 to \$22 per ton. Straw, \$8@9 per ton.

LIVERPOOL MARKET.—Jan. 27.

FLOUR AND MEAL—Western canal Flour, \$5.04@5.23 for old, and \$5.76@6.24 for new; Philadelphia, Baltimore, and Ohio, \$5.76@6.48; Canadian, \$6.00@6.48; extra qualities, \$6.24@6.72; sour, \$4.80@5.52. Corn Meal, \$4.56@4.80.
GRAIN—American white wheat, \$1.51@1.62; red do, \$1.37@1.51; Canadian white, \$1.44@1.58; do. red, \$1.38@1.40. Indian corn—white, \$1.08@1.14; yellow, 93c@96c; mixed, 91½c@93c. All per bush. of 60 lbs.
SEEDS—Clover—New red North American, 11c per lb.
WOOL—Domestic fleece, 11c@83c. Colonial, 14c@12c; German, Saxony, and Prussian, 40c@1.08 per lb.

LONDON MARKET.—Jan. 30.

FLOUR—American sour, \$5.28@5.46; sweet, \$5.76@6.48.
GRAIN—Wheat—American white, \$1.29@1.47; do red, \$1.26@1.41. Indian corn—white, 93c@1.02; yellow, 90c@96c, per 60 lbs.
SEEDS—Clover—Red, 10@11½c; white, 17½@19½c per lb.
WOOL—Domestic fleece, 35c@40c; sorts, 80c@48c per lb.

BRIGHTON CATTLE MARKET.—Feb. 16.

At market, 1200 Beeves, 90 Stores, 2000 Sheep and Lambs, 3 0 Swine.
PRICES—Market Beef—Extra, \$8.00@8.00; First quality, \$7.00@7.50; Second, \$6.75; Third, \$6@6.00. Working Oxen—\$5.50@10.0. Milch Cows—\$34@39; Common, \$17@18. Yearling Calves—\$3.00@5.00. Yearlings—None. Two Years old—\$17@22. Three Years old—\$24@28. Hides—6c@6½c per lb. Calf Skins—10c@11c per lb. Tallow—7@7½c. Sheep and Lambs—\$2.50@3.00; extra, \$4.00@7.00. Pelts—\$1.25@1.75. Swine—Fat Hogs, none. Pigs, 5½@6½c; retail, 6c@7½c.
REMARKS.—Prices of Beef cattle remain about the same as last week, but little extra beef in market. Market more active than last week. Sheep have advanced 25@60c per head. Swine sell the same.
Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

The Rural Annual
AND
HORTICULTURAL DIRECTORY,
FOR 1860.

THE FIFTH VOLUME OF THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY is now published. It contains *One Hundred and Seven Illustrations*. It is unquestionably the handsomest work of the kind yet published in this country. It contains ONE HUNDRED and TWENTY PAGES, abounding in useful and interesting information.

NO FARMER OR FRUIT GROWER SHOULD BE WITHOUT A COPY.

- Among the Contents will be found Articles
- ON PLANTING AND MANAGEMENT OF FRUIT TREES.
- ON INSECTS INJURIOUS AND BENEFICIAL TO THE FARMER AND FRUIT GROWER—75 Illustrations.
- ON DWARF PEARS, APPLES, PLUMS, AND CHERRIES—Six Illustrations.
- ON THE CULTIVATION OF THE AMERICAN BLACK RASPBERRY—One Illustration.
- ON THE MANAGEMENT AND VARIETIES OF PIGEONS—Fourteen Illustrations.
- ON PLANTING EVERGREENS—Two Illustrations.
- ON ORNAMENTAL DECIDUOUS TREES—Seven Illus.
- ON THE DISEASES OF ANIMALS—REMEDIES, ETC.

The Illustrations have been obtained at great expense, and are superior to anything of the kind yet published in this country. Let every one interested in the Culture of the Soil, or in the improvement of Rural Taste, send for a copy.

ONLY TWENTY-FIVE CENTS!

Sent pre-paid, by mail, to any address, on the receipt of the money in three cent postage stamps

Address **JOSEPH HARRIS, ROCHESTER, N. Y.**
Publisher of the *Genesee Farmer*.
The bound volumes for 1856, 1857, 1858, and 1859, can be had at 25 cents each, postage paid.

FROM \$75 TO \$150 PER MONTH—Made by any active person with *improved* Stencil Tools. Indelible Ink and all kinds of Stencil Stock cheaper than elsewhere. For samples and circular containing full particulars, send a stamp to
March, 1860,—21 D. L. MILLIKEN Brandon, Vt.

NEW AND CHOICE VEGETABLE AND FLOWER SEEDS
By Mail.

A CHOICE selection of Vegetable and Flower Seeds, from our experimental gardening the past year, are now offered to the public. Our seeds have been selected with great care, and the fruit thereof has been tested by us, and known to be valuable. Among our vegetable seeds we have the Japan Apple Pie Melon; Cucumber; Tomato; Winter Cherry, (*Physalis viscosa*); West India Cud; Jenny Lind and Pine Apple Canteleups; Cal. Mammoth Parsley; Cal. Prolific Bean, (very choice); Purple Egg Plant; Fan of Kent, (long green), and White Spired Cucumbers; Strawberry Watermelon; Honolulu, Hubbard, and Blue Apple Pie Squash; Constantinople Sweet Corn, (very choice); Sweet Marjoram; Cuba and Graham Tobacco; *Mammoth Mustard*; Sweet Russian and Dew-Drop Turnip, &c., &c. Six packages of the different varieties, 50 cts; 12 packages, 75 cts, or 18 packages for \$1. Please make a selection. Our selection of Flower Seeds are from many varieties of our own cultivation—those that are really desirable; of easy culture, and of the most brilliant display. In our collection we have 12 packets; and to save useless expense, we have mixed all the best varieties of each family in one packet. The 12 packets will embrace new and popular varieties, including: *Rufians*, *Finest Pæonia*, *Flowered Astors*—12 distinct colors; *Russian Scabious*—eight large flowered varieties of this beautiful genus; *Convolvulus Minor*—six varieties of this beautiful genus; *Coropsis*—brilliant and effective—ten varieties; *Morning Glory*, (*Ipomæa*),—From Prussia, striped and varied sorts of the most vivid hues, &c., &c. The 12 packets sent by mail, post-paid, for 50 cents in stamps; or the 12 packets of flower seeds, and six packages of the vegetable seeds for \$1. Sums less than \$1 can be remitted in stamps.

Address LEMUEL NORRIS,
Windsor, Ashtabula Co., Ohio.
March, 1860.—*

MARBLEHEAD DRUMHEAD CABBAGE.

THIS Cabbage is by far the most popular kind sold in Boston markets. It originated in Marblehead, Mass., and holds the same rank among cabbages as the Hubbard Squash among squashes. It is distinguished for its *reliability for heading*—setting a symmetrical head, remarkably hard and heavy. It is early, of a fine grained and sweet, with a stump, when properly cultivated, of but from one to two inches in length. Under good culture, frequently every plant on an acre will set a marketable head.

A package of seed of the best variety of this cabbage—the Stone House—containing seed more than sufficient to raise a winter supply for one family, will be forwarded, postpaid, on the receipt of 20 cents; or one pound of seed, postpaid, for \$4.00—or for 50¢ to parties paying their own freight.

If this Cabbage does not prove to be what I recommend it, the money will be returned; and I hereby offer \$5.00 for one ounce seed of any variety of Drumhead Cabbage that, in the above characteristics, shall prove superior to this.

Any person desiring a package of seed of the Marblehead Drumhead Cabbage, can obtain it at the same price. This is the largest cabbage in the world, averaging, as grown by Marblehead farmers, thirty pounds a head by the acre, and sometimes reaching sixty pounds a plant, and measuring nearly six feet round the solid head. JAMES J. H. GREGORY,
March, 1860.—11 Marblehead, Mass.

W. T. & E. SMITH,

GENEVA NURSERY, GENEVA, N. Y.

OFFER for sale a large stock of the following Trees and Plants:

Standard and Dwarf Cherry, Standard and Dwarf Pear, Peach Trees of fine growth, Grape vines of the New Sorts of Delaware, Anna, Concord, Rebecca, and old sorts of Isabella, Catawba, Clinton; large stock of the true Oporto Grape, the best for making wine, perfectly hardy for our-door culture; Lawton Blackberry plants, Wilson's Albany Strawberry, Doolittle Raspberry, all American Black Raspberry, a great bearer, hardy and valuable; and other valuable sorts at reduced prices. Norway Spruce, from 8½ to 6 feet high; Mahonee Aquafolie Roses of Hybrid Perpetual, or ever blooming, 150 varieties at low prices.

A general assortment of Fruit and Ornamental trees always on hand.

SEEDLINGS, &c.

Tree Seedlings, just imported in good order, now pruned ready for planting, at \$12.00 per 1,000. Apple, Cherry and Plum Seedlings; one year old Hedge Plants, of the Honey Locust variety. This is undoubtedly the best hedge plant in cultivation. For a garden hedge, or as shelter and protection for orchards, it is unsurpassed, being perfectly hardy, with a rapid growth, and when cut sheared makes a strong, handsome and durable hedge fence. Price \$6.00 per 1,000, and will grow on all soils. Plant six inches apart. March, 1860.—11

GRAPES.

Send a stamp and get an Illustrated and Descriptive Catalogue of over 70 sorts of Hardy native Grape Vines.

BISSELL & SALTER send vines by mail, and also by express or freight train. C. P. BISSELL & SALTER, Rochester, N. Y.

HUBBARD SQUASH SEED.

HAVING given the Hubbard Squash its name, and having been the first to introduce it to public notice, I offer the purest seed raised, at 12½ cents for a package of 50 seeds, postpaid; or \$2.25 for one pound, postpaid to any part of the United States, excepting California and Oregon, to which one dollar extra will be charged.

Seed dealers supplied at a discount. The Hubbard Squash is recommended by Hon. Marshall P. Wilder, Hon. Edward Everett, and the entire Agricultural Press of New England, as the sweetest, dryest and richest flavored of all winter squashes. Last Fall it readily brought in the Boston markets \$30 per ton, while the best Boston Marrow sold with difficulty at \$15.

The Hubbard Squash has succeeded admirably in New England, the West; in California, New York, and other states.

JAMES J. H. GREGORY,
March, 1860.—11 Marblehead, Mass.

SAMUEL MOULSON,

AT THE OLD ROCHESTER NURSERIES,
ROCHESTER, N. Y.

HAVING an extra stock of the undermentioned items, offers them at greatly reduced prices:

WHITE EUROPEAN BIRCH, 10 to 12 feet high,....	\$14 00 per 100
MAGNOLIA TRIPETALA, 8 to 4 " " " " " "	35 00 " "
WEeping MOUNTAIN ASH, 9 to 8 " " " " " "	4 00 per doz.
SNOW BALLS, 2 " " " " " "	50 00 per 1000
Do., 4 to 5 " " " " " "	18 09 per 100
NORWAY SPRUCE, 5 to 6 " " " " " "	35 00 " "
RED CEDARS, 1 to 2 " " " " " "	60 00 per 1000

Together with a full assortment of items, both in the Fruit and Ornamental Departments.

Catalogues on applications enclosing a stamp for prepayment.

ALL KINDS OF AGRICULTURAL BOOKS—Farmers, Gardeners, Nurserymen, Fruit-Growers, Dairymen, Cattle Dealers, and all persons interested in tilling the soil or adorning their grounds and dwellings, will be supplied with the most complete assortment of Books relating to their business that can be found in the world, by

C. M. SAXTON, BARKER & Co.,
Agricultural Booksellers and Publishers of The Horticulturist,
No. 25 Park-row, New York,
Catalogues gratis. Books sent by mail.
AGENTS WANTED. March, 1860.—41

STOCKS FOR NURSERYMEN.

150,000 PRIME Pear, Mahaleb and Quince Stocks, at the lowest rates. Also, Norway Spruce, 6 inches to 2 feet high; American White Spruce, White Pine, Russian Pine, Scotch Fir, &c. Grapes, Gooseberries, Currants, Raspberries, Strawberries, Pie Plant, &c., at prices to suit the times.

New Wholesale Catalogues free. Address. E. Y. TEAS, Richmond, Indiana.
March, 1860.—11

SAELTZER & VALK, ARCHITECTS,

Bible House, Astor Place, New York City.

THE success of the New American Style for Cottages and Villas is shown by its being adopted by all gentlemen who have seen our samples. No other style is so beautiful or economical as this. For terms in making out drawings &c., enclose a stamp and send for a circular, containing another example. It

HAMILTON NURSERIES, C. W.

THE subscriber, having occasion to remove the following trees in Spring, offers them to the trade *very low*:
About 10,000 Fine Plum Trees, 4 to 7 feet high.
6,000 " " " " 1 year—20 to 40 inches.

They are of the best leading varieties and grafted on the hardy Canada Plum Stock. W. HOLTON.
Hamilton, March, 1860.—11*

The Farmer and Gardener,

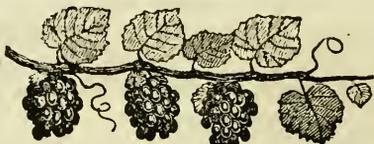
A FIRST-CLASS Agricultural and Horticultural monthly. TERMS, ONE DOLLAR per annum, with a postpaid copy of "THE YEAR BOOK OF THE FARM AND GARDEN."

Send for specimen numbers. A. M. SPANGLER,
March, 1860.—11 No. 633 Market street, Philadelphia.

THE YEAR BOOK OF THE FARM AND GARDEN.

A HANDSOMELY printed, elegantly illustrated, and strictly reliable Manual for the Farmer, Fruit and Vegetable Grower. Price, 25 cents, prepaid. A. M. SPANGLER,
March, 1860.—11 No. 633 Market street, Philadelphia.

JAPAN APPLE PIE MELON—Packets containing *Thirty* Seeds, with directions for use, will be sent by mail, postpaid, to any address in the Union, on receipt of *nine three-cent stamps*. Address B. K. BLISS, Springfield, Mass.



ISABELLA AND CATAWBA GRAPE VINES.

MADE FROM FRUIT WOOD ALONE.

OF proper age for forming Vineyards, cultivated with and containing all the good qualities which the most improved cultivation for over twenty years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

The past season, though the coolest and most unfavorable for grape maturing we have had in many years, the subscriber ripened his whole crop, proving that his Isabellas and Catawbas have become perfectly acclimated. This gives him full assurance that, by improved cultivation, pruning, &c., a crop of good fruit can be obtained EVERY YEAR, in most of the Northern, all of the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor. When the purchase is large, and approved paper or other security can be offered, a liberal credit on most of the purchase will be given.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.

Also, for sale at his PURE WINE AND GRAPE DEPOT, (No 7 Clinton Hall, Astor Place, N. Y. City), Isabella and Catawba Wine in their Purity.

All communications addressed to R. T. UNDERHILL, M. D., New York, or Croton Point, Westchester Co., N. Y., will receive attention. March, 1860.—2t

FIVE SPLENDID STRAWBERRIES.

Hooker—Very productive; large, beautiful, and of UNEQUALLED QUALITY.

Wilson's Albany—Exceedingly productive; FINE FOR MARKET.

Triomphe de Gand—IMMENSE SIZE; splendid appearance, and high flavor.

Pyramidal Chilian—Very handsome; productive, hardy, and good flavor.

Large Early Scarlet—THE EARLIEST; productive and excellent.

As it is impossible to secure all the excellencies of this most popular fruit in one variety, we offer the above as comprising, in five sorts, the various points desirable.

We again confidently RECOMMEND the HOOKER, as by far the best for family use, if only one sort is to be planted—combining a greater number of excellencies than any other variety.

All of the above have perfect flowers, and will produce excellent crops, if planted singly or together.

PRICES—(Securely packed to be forwarded by express):

Per 100 plants of any of the above varieties.....	\$2 00
“ 100 “ 20 of each variety.....	3 00
“ 500 “ 100 of each variety.....	7 50
“ 1000 “ of the Hooker.....	10 00

H. E. HOOKER & CO.,

COMMERCIAL NURSERIES,

Rochester, N. Y.

March, 1860.—1t

QUEEN'S SEEDSMEN

Peter Lawson & Son,

EDINBURGH, No. 1 GEORGE IV. BRIDGE

LONDON, No. 27 Gt. GEORGE STREET, WESTMINSTER, S. W.

ON account of the numerous applications which have been made to Peter Lawson & Son to send their List of Seeds and Nursery Produce to the United States and Canada, they beg to inform the Trade in America, that they are prepared to furnish them with

PRICE LISTS,

and to assure them that any orders they may be favored with will receive their best attention.

All orders must be accompanied by Cash, or satisfactory references in England. March, 1860.—1t*

LIFE ILLUSTRATED.—A FIRST-CLASS

pictorial weekly, for the family, the merchant, mechanic, artisan, farmer, planter, manufacturer, builder, fruit-grower, etc. \$2 a year. Address, 2t FOWLER AND WELLS, New York.

Extract from the Catalogue of Messrs. E. G. Henderson & Son the Queen's Nurserymen, London, 1859.

The Lawton Blackberry,

(THE NEW AMERICAN FRUIT.)

“Numerous testimonials of public bodies and professional growers, have been produced in favor of its being a distinct and good habited plant, without a single defect in its growth or bearing—the fruit of delicious flavor, admirably adapted either for a dessert fruit, for market produce, or for family consumption in home-made wine. The fruit is produced in large terminal racemes; the individual aggregate berries are large, like to small conglomerated miniature clusters of black grapes, and with seeds proportionately small to each berry.”

Thus in all parts of the world is this fruit becoming favorably known, and a volume of testimonials could be given equally favorable. The original variety, free from admixture of seedlings, or the Common New Rochelle, in packages to suit pur chasers, for sale by WILLIAM LAWTON, New Rochelle, N. Y. March, 1860.—1t

☞ Circulars free.

NEW AND RARE FLOWER SEEDS.

CALLIURHO PEDATA,	per packet,....	25
ACROCLINUM ROSEUM,	“	10
ALONSOA WAESGEWICHI,	“	10
CLAERKA PULCHELLA VAR INTEGUPETALA,	“	25
NEW AURICULA FLOWERED SWEET WILLIAM,	“	25
DIANTHUS CHINENSIS HEDDEWIGI,	“	50
DIANTHUS CHINENSIS LACINIATUS,	“	50
GUTIERNEZIA GYMNOS PERMOIDES,	“	10
SPONGIA TRICOLOR,	“	10

With hundreds of other new varieties, for which see our Flower Seed Catalogue. Also, ASSORTMENT containing 5 BEAUTIFUL VARIETIES PHLOX DRUMMONDI, for..... 40 cents
7 do do PORTULACA, 85 “

March, 1860.—1t J. M. THORBURN & CO.,
N. B. SPERGULA PILIFERA, 50 cents per packet. 15 John St., New York.

FARMERS READ! FARMERS READ!!

THE best of all modern inventions is “Shares' Coultter Harrow Pulverizer and Grain Coverer,” which was used last season with grand success by very many of the best farmers in this country, and pronounced “Excelsior”—“nothing can excel.”—The price is only \$15, and it weighs only 185 lbs. Farmers having “Corn stubble,” or “Cabbage stubble,” or Fall-plowed s d who use this machine, need not use the plow in the Spring. Thi Coultter Harrow answers for the Plow, Cultivator and Harrow combined, besides saving its value in time. For particulars an Catalogues, address WM. V. EGGLESTON.

Dealer in Seeds and Implements, Albany, N. Y. March, 1860.—2t

FARM FOR SALE.—Situatd within about half a mile of th village of Wallingford, New Haven Co., Conn., and abo three-quarters of a mile from the Depot of the New Haven Har road and Springfield Railroad. Said farm contains about 12 acres. I will sell the whole, or divide it. It is one of the be farms in the county, and in a high state of cultivation. Building nearly new and beautiful location; good orchards of grafted trui and spring water brought to house and barns in pipes. For p ticulars inquire of the subscriber on the premises.

ELIJAH WILLIAMS, Wallingford, Conn., Feb., 1860.

POTATO OATS AND SEED POTATOES.—This superi variety of oats ripens early, yields largely, and weighs fro 33 to 44 lbs. per bushel. Seed, of my own raising, at one dolla per bushel. Also—Prince Albert, Jackson White, Jersey Blu Davis Seedling, and Peach Blow Potatoes for sale at one dolla per bushel and no charge for packages—bags for oats 25 cen each—delivered on cars at Batavia. A liberal discount on orde of 10 bushels or over. P. P. BRADSHI, Batavia, N. Y., Feb., 1860.

BEE KEEPING EXPLAINED.—A practical work of ne 400 pages, that all can understand, giving directions on ev ery point of Bee culture, viz:—making hives, either the commo box or movable comb hive; how to make boxes; when to p them on, take them off; how to make artificial swarms; how t prevent being destroyed by the moth, loss of queens, diseas brood, &c., &c. Sent free of postage for one dollar. Address 1t M. QUINBY, St. Johnsville, N. Y.

LAWTON BLACKBERRY.—Permanent, hardy, prolific large size, and of exquisite flavor, in all climates; the ori nial variety carefully preserved from admixture with seedling and the common New-Rochelle Blackberry for sale, in small large packages, by WILLIAM LAWTON, March, 1860.—3t New-Rochelle, N. Y.

LIFE ILLUSTRATED.—A FIRST-CLAS weekly pictorial. Only \$2 a year; \$1 for six months. Address, 2t FOWLER AND WELLS, New York.

FRUIT AND ORNAMENTAL TREES
FOR THE SPRING OF 1860.

ELLWANGER & BARRY

SOLICIT the attention of Planters, Nurserymen, Dealers, and others, to their large and fine stock of FRUIT AND ORNAMENTAL TREES, SHRUBS and PLANTS, which they offer at wholesale and retail. All who intend to purchase trees this Spring, in large or small quantities, will do well to consult the Catalogues named below. Our new Descriptive Fruit Catalogue is now ready for distribution. In general terms, the stock may be enumerated in part as follows, viz:

STANDARD FRUIT TREES FOR ORCHARDS,

embracing all the most esteemed and valuable sorts for different parts of the country.

Dwarf Trees for Gardens.—All the best varieties adapted to garden culture in this form.

Grapes—Hardy varieties, including Delaware, Hartford Prolific, Emily, Diana, Rebecca, Raabe, Concord, Clara, Bruckle, &c.

Grapes, Foreign, for vineries, including Muscat, Hamburg, Stockwood, Golden Hamburg, Lady Down, Buckland's Sweetwater, &c.

Strawberries—All the American and Foreign varieties of proved excellence in this country.

Blackberries—Dorchester and New Rochelle or Lawton; of the latter, a great stock of strong plants.

Gooseberries—The best English sorts, and a great stock of the American Seedling, that bears wonderful crops and is exempt from mildew.

Currants—White Grape (the largest and best white Currant), Victoria, Red Dutch, Black Naples, &c.

ENGLISH FILBERTS and SPANISH CHESTNUTS.
Eggs—Several of the finest sorts.

Rhubarbs—Linnaeus, Giant, Victoria, and several new and fine English sorts.

FRUIT TREES FOR ORCHARD HOUSES.

Dwarf Maiden Trees—Of Apple, Pear, Plum, Cherry, Apricot, &c., of the finest sorts for pot culture or orchard houses. Suitable selections made by E. & B. if desired.

ORNAMENTAL DEPARTMENT.

The stock in this department is the largest and best we have ever before offered, and embraces everything desirable, new and old, among

Deciduous Ornamental Trees, Paonies,
Evergreen Trees, Dahlias,
Flowering Shrubs, Phloxes,
Climbing Shrubs, Border Plants,
Roses.

Balbois Roots—Summer flowering, including Amaryllis; Gladiolus; Lilies, Japan, &c.; Tuberoses, Tigrida, Tritoula aurea, Jochicum, &c.

Stocks for Nurserymen.

PEAR SEEDLINGS, our own growth, 1 and 2 years.
MAZZARD CHERRY, 1 year.
MAHALEB do. 1 and 2 years.
QUINCE STOCKS, 1 year from cuttings.

For full and detailed information respecting the stock, prices, terms, &c., we refer to the following Catalogues, which will be sent gratis, prepaid, to all who inclose one stamp for each:

- No. 1—Descriptive Catalogue of Fruits.
- No. 2—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses &c., &c.
- No. 3—Descriptive Catalogue of Dahlias, Green-House and Bedding Plants, &c.
- No. 4—Wholesale Catalogue for Nurserymen, Dealers, and others who purchase in large quantities.

ELLWANGER & BARRY,

March, 1860.—11 Mount Hope Nurseries, Rochester, N. Y.

THE PERFECTED TOMATO.

POMO D'ORO LESTERIANO.

THIS NEW SPECIES OF TOMATO—which has been brought to perfection by C. EDWARDS LESTER, Esq., after many years of experiment in Italy and the United States—has been pronounced by Agricultural Fairs, Farmers' Clubs, Horticulturists, Chemists and Epicures, to be in all respects superior to any other species. It excels in size, delicacy of flavor, thinness of skin, firmness of seeds, solidity of meat, prolific bearing, and ease of culture. It matures quicker, and hangs longer on the vine than any other.

We have a small supply of seed saved by Mr. Lester last season.

Price, per packet, containing 24 seeds, 25 cents.

If ordered by mail, a three cent stamp must be added, for return postage.
J. M. THORBURN & CO,
March, 1860.—1, 15 John St., New York.

Rare and Beautiful Flowers.

B. K. BLISS, SEEDSMAN AND FLORIST.
Springfield, Massachusetts.

WOULD respectfully inform his friends and patrons that his new Descriptive Catalogue of FLOWER AND VEGETABLE SEEDS is now ready for delivery, and will be mailed to all applicants enclosing a three-cent stamp. Much pains has been taken in preparing it, and it contains, in addition to the information usually found in such lists, many descriptive and cultural notes for the benefit of the amateur and unprofessional florist.

It will embrace all that is new and most desirable among Annuals, Biennials, Perennials, and Green House Seeds, alike suitable for the Flower Garden, Pleasure Grounds, Lawns, Shrubs, berries, and the Conservatory, as well as many matchless novelties of the highest merit, which have been collected by his European correspondents from the most reliable sources.

Collection of Flower Seeds by Mail, Pcs' paid.

The following collections have been sent out from his establishment for the past six years, and are now favorably known in every section of the country.

ASSORTMENT No. 1—Contains twenty choice varieties of Annuals—\$1.00.

ASSORTMENT No. 2—Contains twenty choice varieties of Biennials and Perennials—\$1.00.

ASSORTMENT No. 3—Contains ten extra fine varieties of Annuals and Perennials, embracing many of the newest and choicest in cultivation—\$1.00.

ASSORTMENT No. 4—Contains five very choice varieties selected from *Prize Flowers* of English Pansies, German Carnation and Picotee Pinks, Verbenas, Truffant's French Asters, Double Holly hocks—\$1 00.

Any one remitting \$3.00 will receive the four assortments, postage free.

The Seeds contained in the above assortments are of his own selection. Purchasers who prefer to make their selection from the Catalogue will be entitled to a discount proportionate to the quantity ordered.

All orders must be accompanied with the Cash, which can be remitted in current bank bills or postage stamps.

Please address B. K. BLISS,
March, 1860.—31 Springfield, Mass.

NEW AND VALUABLE SQUASHES.

SEEDS OF THE HONOLULA , per packet,.....	25 cents
GOLDEN GREEN JAPAN , ".....	25 "
WHITE LEGHORN , ".....	35 "
MAMMOTH CUBA , ".....	25 "
MAMMOTH CHILI , ".....	25 "
IMPROVED LIMA MARROW , ".....	25 "
SANDWICH ISLAND , ".....	25 "
HUBBARD , per lb., \$1.50; per oz.,.....	20 "
TREE SEVEN YEAR PUMPKIN , per packet,.....	25 "

TREE AND SHRUB SEEDS.

NORWAY SPRUCE , per packet,.....	\$0 7
EUROPEAN SILVER FIR , ".....	1 0
BALSAM FIR , ".....	3 00
HEMLOCK SPRUCE , (clean seed) ".....	6 0
AMERICAN ARBOR VITAE , do., ".....	6 00
CHINESE , do do., ".....	3 00
STONE PINE , ".....	1 50
BLACK AUSTRIAN PINE , ".....	3 0
SCOTCH FIR , ".....	1 50
SCOTCH LARCH , ".....	3 00
AMERICAN BALD CYPRESS (beautiful), per quart.....	90
STRAWBERRY TREE (<i>arbutus unedo</i>), per oz.....	40
HOP TREE , per oz.,.....	25
BUCKTHORN , per lb.,.....	1 00

Tree Seed Catalogues on application to
J. M. THORBURN & CO.
March, 1860.—11 15 John St., New York.

BELL CRANBERRY PLANTS.
NEW-ROCHELLE (Lawton) BLACKBERRY.

HOP TREES, all of which are reliable, and at lowest prices. Circulars relating to culture, soil, price, &c., will be furnished gratis to applicants. Also, Brinckle's Orange, North River, Red Antwerp, Black Cap, Franconia, and other varieties of RASPBERRIES.

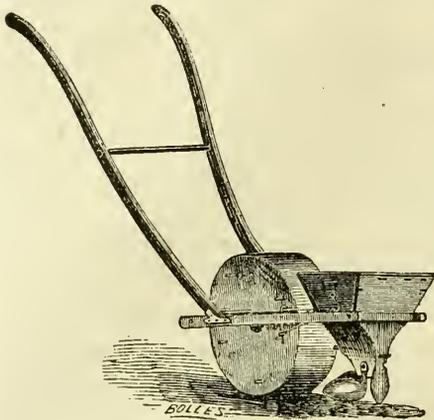
Delaware, Logan, Rebecca, Diana, Concord, Hartford Prolific, Isabella, Catawba, and other varieties of GRAPE VINES, with a full assortment of

TREES, PLANTS, ROSES, VINES, &c.

2,000 Norway Spruce and Arbor Vitae, 8 to 12 feet high, handsome form—it is said by others to be the finest lot in New England—and at less prices, F. TROWBRIDGE & CO.
New-Haven, Conn., Feb., 1860.

HUBBARD SQUASH—Warranted pure. Packets containing *Five Seeds* will be sent to any address in the Union on receipt of *five three-cent stamps*. *One hundred Seeds for nine three-cent stamps*. Please address B. K. BLISS,
March, 1860.—31 Springfield, Mass.

Wethersfield Seed Sower.



ATTENTION

SEEDGROWERS, GARDENERS, AGRICULTURISTS,
AND
Dealers in Agricultural Implements!

The above machine is the invention of T. B. ROGERS, of Wethersfield, Conn.—a place noted as a great seedgrowing town, and where large numbers of root crops are cultivated. It is there extensively used.

It was Awarded the Highest Premium at the Connecticut State and Hartford County Fairs.

COMMENTS OF THE PRESS.

Just the implement which farmers and market gardeners have long needed. Every kind and size of seed is sown. Even parsnip seeds, which have baffled every machine hitherto used, are scattered by Mr. Rogers' implement, with just as much precision and evenness as any other seed.—*Homestead*.

The labor in working is just about equal to trundling an empty wheelbarrow.—*Christian Secretary*.

It is equally well adapted to large or small seed, of regular or irregular form. It sows beans with perfect regularity, and can be changed in an instant for the sowing of cabbage, mustard, or any other seed. Nothing comes amiss to this implement. It makes the drill in the soil, deposits the seed, covers them, and rolls the surface, all, as it goes along. It is PERFECT; and ALL JUDGES, present at the trial, AGREE UPON THIS POINT.—*Hartford Times*.

Its great advantages are, that it lays the seed with perfect regularity, never crowding any, nor leaving blank spaces, and that no seed can by any means fall from it when it is not in motion.—*Hartford Courant*.

It sows as fast as a man can walk.—*Homestead Agricultural paper*.

It does better work, and faster, than seed drills that sell at double its price.

For particulars, send for a circular. Dealers supplied at the usual discount. Their orders should be forwarded immediately, as the supply may be short this season. No implement dealer should allow any time to pass, without ordering from 12 to 500 according to the largeness of his market. Price \$8.

RODNEY KELLOGG,
General agent for the United States,
201 & 205 Commerce Street, Hartford, Conn.

1t

LIFE ILLUSTRATED.—A FIRST-CLASS

pictorial family journal, for men, women, and children, at home and abroad, in school, college, seats of government, everywhere, at \$2 a year.

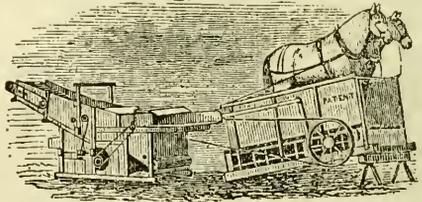
Address, 2t FOWLER AND WELLS, New York.

Beautiful French Gladiolus.

WE have just received fifty named varieties of the above species. Price, from 15 cents to \$1.50 each.

ALSO,
All the other varieties of GLADIOLUS,
TUBEROSES,
TIGER FLOWERS, &c., &c.
For which see our Flower Seed Catalogue.

J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.



WHO CAN EQUAL IT?

A GENTLEMAN residing in Jefferson county, N. Y., having sold one of our Three Horse Endless Chain Powers and Combined Thresher and Winnowers, wrote to us upon remitting pay for the same, that Mr. Sprague, the purchaser, had threshed 240 bushels of barley in three hours, and that he was doing more than the eight-horse machines.

Also, Mr. Clark, of Chautauque county, wrote to us that he had threshed 69 bushels of wheat in 70 minutes, and 100 bushels of oats per hour.

Our Endless Chain Powers for One, Two and Three Horses, Lever Powers, Combined Threshers and Winnowers, and Threshers with Vibrating Separators, have met with unequalled success wherever introduced.

We also manufacture a Clover Machine, lately much improved, which can not be surpassed for durability or quality and quantity of its work.

For full particulars and Price List, send for our Descriptive Circular, which will be sent to all applicants.

Address, G. WESTINGHOUSE & CO.
March, 1-60—3t Agricultural Works, Schenectady, N. Y.

LIFE ILLUSTRATED.—A FIRST-CLASS

pictorial weekly—Vol. 9—Circulates largely in all the States, North, South, East, and West. Adapted to the farmer, planter, merchant, inventor, mechanic, and the family. \$2 a year; \$1 for half a year. Address,
Feb'y—2t FOWLER AND WELLS, New York.

Pear Seed! Pear Seed!!

WE have still on hand a small quantity of warranted
PEAR SEED (imported),..... \$1 50 per lb.
Do do (American),..... 3 00 “
APRICOT PITS,..... 75 “
APPLE SEED,..... 7 00 per bu.

J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.

**PORTEMER FILS, Nurseryman,
GENTILLY, near Paris, FRANCE,**

DEGS to announce that he has on hand a large assortment of very fine ROSE TREES, also PEAR and QUINCE STOCKS, for sale at a moderate price. Apply to
Jt PAUL BOSSANGE, 59 Liberty street, New York.

THE PHRENOLOGICAL JOURNAL—NEW

volume—31—commences this January, devoted to the Intellectual, Moral, and Physical Improvement of Mankind. Portraits of leading men, notorious criminals, etc. \$1 a year.
Address, 2t FOWLER AND WELLS, New York.

Flower Seeds by Mail.

OUR OWN SELECTION OF
25 varieties for..... \$1 00
50 “ “ 2 00
100 “ “ 4 00

Persons ordering either of the above assortments, may rely upon a beautiful collection. J. M. THORBURN & CO.,
March, 1860—1t 15 John St., New York.

Spring Garden Seeds.

THE most complete assortment ever offered to the public.

ALSO,
KENTUCKY BLUE GRASS,
ORCHARD GRASS,
TIMOTHY, RED TOP,
RHODE ISLAND RED GRASS,
WHITE AND RED CLOVER,
ENGLISH RYE GRASS,
ITALIAN RYE GRASS,
LUCERNE.

SEED POTATOES.—A choice assortment. For descriptions and prices, send for our catalogues.

J. M. THORBURN & CO.,
March, 1860—1t 15 John street, New York.

SPALDING'S PREPARED GLUE!**SPALDING'S PREPARED GLUE!****SPALDING'S PREPARED GLUE!****SAVE THE PIECES!****ECONOMY!****DISPATCH!**"A STITCH IN TIME SAVES NINE." 

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken eradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary masticage, being vastly more adhesive.

"USEFUL IN EVERY HOUSE."N. B.—A Brush accompanies each bottle. *Price, 25 cents.***Wholesale Depot, No. 30 Platt Street, New York.**Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

 A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household .

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!**USEFUL IN EVERY HOUSE.****SPALDING'S PREPARED GLUE,**
SOLD BY STATIONERS.**SPALDING'S PREPARED GLUE,**
SOLD BY DRUGGISTS.**SPALDING'S PREPARED GLUE,**
SOLD BY HARDWARE DEALERS.**SPALDING'S PREPARED GLUE,**
SOLD BY HOUSE-FURNISHING STORES.**SPALDING'S PREPARED GLUE,**
SOLD BY FURNITURE DEALERS.**SPALDING'S PREPARED GLUE,**
SOLD BY FANCY-GOODS DEALERS.**SPALDING'S PREPARED GLUE,**
SOLD BY GROCERS.**SPALDING'S PREPARED GLUE,**
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by

HENRY C. SPALDING & CO.,
48 Cedar Street, New York.

Address Post-Office, Box No. 3,600.

Dec., 1859.—1y

THE PEOPLE'S MILL,
SANFORD'S PATENT.

A FARM MILL, Portable, simple, compact, and made on an entirely new principle, with plates having a reciprocating and oscillating, instead of a rotary motion, with all the power applied within one inch of the center of the shaft, and one that has been fully tested and improved by two years' experience, is now offered to the public. Every Mill is tested, and not one is sent out unless it will grind a bushel of hard corn fine enough for stock feed in *eight minutes*; many kinds of grain it will grind much faster.

It is the **PREMIUM MILL** for the People, and obtained**THE SILVER MEDAL AT THE LATE EXHIBITION**

at the American Institute in the city of New York.

The **PEOPLE'S MILL** can be put into any Saw-mill.The **PEOPLE'S MILL** is the cheapest Mill ever offered to the public.The **PEOPLE'S MILL** is the simplest Mill ever made.The **PEOPLE'S MILL** is the most durable in use.The **PEOPLE'S MILL** has the most grinding surface of any portable mill.The **PEOPLE'S MILL** requires less power than any other doing the same amount of work.The **PEOPLE'S MILL** requires less speed than any other mill.The **PEOPLE'S MILL** is adapted to any kind of power.The **PEOPLE'S MILL** is not a rotary mill.The **PEOPLE'S MILL** obviates all the objections to the cast iron rotary mill.The **PEOPLE'S MILL** will grind all kinds of grain, coarse or fine, for feed.The **PEOPLE'S MILL** will grind plaster, bones, salt, all kinds of grain, malt, peas, beans, spices, etc., etc.The **PEOPLE'S MILL**, largest size, requires about two horse power.The **PEOPLE'S MILL** only requires about two hundred and fifty revolutions per minute.The **PEOPLE'S MILL**, largest size, will grind from 150 to 200 bushels of grain in 24 hours.The **PEOPLE'S MILL** may be renewed at the cost of the plates, which will be furnished at 50 cents each.

The plates are made of hard iron, dressed or grooved on both sides, and the reciprocating motion keeps the grinders sharp. There is no *bolt* to it, which, we think, experience has proved of no use on portable mills. The common sieve is sufficient for all ordinary family purposes. Three sizes—

No. 1, A HAND-MILL, PRICE \$20, No. 2, \$30, No. 3, \$40.

LIBERAL DISCOUNT MADE TO DEALERS.

A mill may be seen in constant use at my shop; also at No. 17 Spruce St., New York, a few doors below the Tribune Building.

 I will fill all orders for Belting at cost.

Address

R. L. HOWARD,

BUFFALO, N. Y.

 I also manufacture the Improved Ketchum Grass and Grain Harvester. Feb'y—3t**JOHN KOLBER'S**

SECOND IMPORTATION OF

HUNGARIAN GRAPE SLIPS,

WILL BE RECEIVED per steamer in March next, consisting of 30,000 hardy shoots, embracing a selection of *twenty-one* of the choicest varieties of

TABLE AND WINE GRAPES,

suitable for out-door culture in every section of the United States.

The slips will be long, thrifty, thickly budded, *all hardy*; some excel on mountain slopes of moderate elevation, others on plains.To secure prompt delivery, *orders* should be sent in early, that the proprietor may be enabled to forward them in good condition on their arrival.

Sold in lots to suit purchasers. A bundle containing ten varieties, each carefully marked, will be forwarded to order for one dollar by express, payable on delivery. One hundred slips for five dollars. A liberal discount to agents, wine-growers and nurserymen. Send for Descriptive Catalogues.

JOHN KOLBER,

Feb'y—2t

592 Broadway, New York.

CRANBERRY CULTURE.—The subscriber has issued a Circular on the **CRANBERRY AND ITS CULTURE**, and will forward it free of charge, by mail, to those wishing it. He also has the plants for sale, for both High and Low lands, and will forward them in a fresh state, by Express, to all parts of the United States. Price, *Bell* and *Washington* varieties, \$5 per 1000, or \$20 per 5000 plants; *Barberry* and *Cherry* varieties, \$3 per 1000, or \$11 per 5000 plants. Address

PAUL CHILSON,

Feb'y—2t

Bellingham, Norfolk Co., Mass.

RUSSIA OR BASS MATS—Selected expressly for budding and tying. **GUNNY BAGS, TWINES, HAY ROPE, &c.** suitable for Nurserymen and Farmers, for sale in lots to suit, by

D. W. MANWRIGHT, Importer,

Sept., 1859.—1y*

245 Front Street, New York.

LIFE ILLUSTRATED.—A FIRST-CLASS

pictorial weekly, circulates East, West, North, and South. Adapted to the interests of all—to the farmer, planter, merchant, inventor, artisan, mechanic, to schools, the learned professions, law, medicine, and divinity. \$2 a year.

Feb'y—2t FOWLER AND WELLS, New York.

BLOOMINGTON NURSERY, ILL.—Eighty acres. Fruit and Ornamental Trees. 1,000 Grafts, 10,000, \$50. Wilson's Albany Strawberry, 1,000, \$10. &c., &c. *See new List.*
March, 1860.—31* F. K. PHENIX.

CONTENTS OF THIS NUMBER.

Some Hints on Spring Work.....	73
Surface Mannering.....	74
Mole Drains.....	75
Anbury, or Club-foot, in Turnips, Cabbages, etc.....	76
Draught-Bars or Whiffletrees. Large Pig.....	76
Spirit of the Agricultural Press.....	77
Breeding and Rearing Farm Stock.....	78
The Rationale of Cweeing the Cud in Ruminating Animals.....	79
Notes on the Dec. and Jan. numbers of the Genesee Farmer.....	79
Best Food for Laying Fowls.....	80
Maxims.....	81
English Bacon. Curing Beef for Drying.....	82

GENESEE FARMER PRIZE ESSAYS.

On Buildings Suitable to a Large and Small Farm.....	82
Large or Small Farms—Which are the Most Profitable.....	84
Sowing Timothy or Herds-grass.....	84
The Best Mode of Raising Carrots, etc.....	85
How Deep should we Plow. Trees for a Country Cemetery.....	86
Cultivation of Flowers.....	87
The Potato Convention.....	88

HORTICULTURAL DEPARTMENT.

Transactions of the Massachusetts Hort. Society for 1859.....	89
Transplanting White Cedars from the Swamp.....	90
How to Make Extra Branches Grow on Pear Trees.....	90
Color of Houses—Winter Aspect.....	90
The Hawthorn. Gen. Valley Hort. Society.....	91
Recipes for Preventing Rabbits from Barking Trees.....	91
Onions and How to Raise them. Tompkins Co. King Apple.....	92

LADIES' DEPARTMENT.

Bedroom Decoration. Making Butter in Winter.....	93
Original Domestic Receipts.....	93

EDITOR'S TABLE.

Notes on the Weather.....	94
New York State Agricultural Society. Patent-Office Seeds.....	94
Items, Notices, &c.....	95
Inquiries and Answers.....	95, 96
Notices of Books, Pamphlets, &c.....	96

REVIEW OF THE MARKETS.

General Remarks.....	97
Market Reports.....	97, 98

ILLUSTRATIONS.

An English Mole-draining machine.....	75
Turnip affected with Anbury.....	76
Draught-bars.....	76
The Potato Convention.....	88
Cut-leaved Hawthorn.....	91
Seed Onion.....	92

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

By **JOSEPH HARRIS.**

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants.

The address of papers can be changed at any time.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.

Address **JOSEPH HARRIS,**

Publisher and Proprietor, Rochester, N. Y.

THE

GENESEE FARMER

FOR 1860.

THE terms of the GENESEE FARMER are: Single Subscribers, Fifty Cents a year, in advance; Five Copies for Two Dollars; Eight Copies for Three Dollars; and any larger number at the same rate. All subscriptions to commence with the year.

In addition to this reduction of one-fourth, we offer the following List of Specific Premiums as an extra inducement for our friends to form Clubs.

SPECIFIC PREMIUMS.

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *Rural Annual* for 1860.

2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *Genesee Farmer* and one copy of the *Rural Annual*, pre-paid, by mail.

3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

Any larger list than twenty-four will probably take some of the Cash Premiums given below. If not, the Specific Premiums will be increased in the same proportion as the above.

APRIL CASH PREMIUMS

For the Greatest Number of Subscribers.

As some compensation to our numerous friends for their disinterested efforts in increasing the circulation of the *Genesee Farmer*, we offer the following List of Cash Premiums for the greatest number of subscribers sent in after the fifteenth day of January, and before the fifteenth day of April. Those who took the January Premiums will be allowed to compete for the April Premiums; but in this case, and in all others, the lists sent in previous to the fifteenth of January will not be counted. The premiums will be awarded to those who send in the greatest number of subscribers between January 15 and April 15. The names of the successful competitors, together with the number of subscribers, will be announced in the May number, and the Premiums paid immediately.

1. TWENTY-FIVE DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 87½ cents each,) before the 15th day of April, 1860.
2. TWENTY DOLLARS to the person who shall send us the second highest number, as above.
3. NINETEEN DOLLARS for the third list.
4. EIGHTEEN DOLLARS for the fourth.
5. SEVENTEEN DOLLARS for the fifth.
6. SIXTEEN DOLLARS for the sixth.
7. FIFTEEN DOLLARS for the seventh.
8. FOURTEEN DOLLARS for the eighth.
9. THIRTEEN DOLLARS for the ninth.
10. TWELVE DOLLARS for the tenth.
11. ELEVEN DOLLARS for the eleventh.
12. TEN DOLLARS for the twelfth.
13. NINE DOLLARS for the thirteenth.
14. EIGHT DOLLARS for the fourteenth.
15. SEVEN DOLLARS for the fifteenth.
16. SIX DOLLARS for the sixteenth.
17. FIVE DOLLARS for the seventeenth.
18. FOUR DOLLARS for the eighteenth.
19. THREE DOLLARS for the nineteenth.
20. TWO DOLLARS for the twentieth.
21. ONE DOLLAR for the twenty-first.

Our Agents, and Competitors for the above Premiums will remember that our terms are always IN ADVANCE.

Subscription money may be sent by mail at my risk, and you need not "register" the letters.

Address **JOSEPH HARRIS,**

PUBLISHER AND PROPRIETOR,

February 1, 1860. ROCHESTER, N. Y.

STEREOTYPED BY JAMES LENNOX, ROCHESTER, N. Y.

The Genesee Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., APRIL, 1860.

No. 4.

PROF. LEE TRIES TO BE CRITICAL.

OUR old friend Dr. DANIEL LEE, now editor of the agricultural department of the *Southern Field and Fireside*, published at Augusta, Ga., takes exception to two of our statements in the leading article in the February number of the *Genesee Farmer*, on "Bones as a Fertilizer."

The Professor prefaces his criticism with some complimentary allusions to our connection with "Messrs. LAWES and GILBERT, who have tried more agricultural experiments to develop the true principles of the science than any other men living," etc., for the purpose of showing, as he says, "that our (his) critical remarks may not seem far-fetched and out of place."

The first of the two statements which the Professor deems erroneous is stated as follows:

"The *Genesee Farmer* says: 'Dry bones contain, in one hundred lbs., about fifty lbs. of phosphate of lime, and gelatine equal to about five lbs. of ammonia.' Both of these statements are too low, and make the value of bones for agricultural purposes less than it really is."

To prove this, Dr. LEE quotes an analysis of the bones of a cow, made by the late Prof. JOHNSTON, showing that they contained 58½ per cent. of phosphate of lime and magnesia, and gelatine equal to 6½ per cent. of ammonia.

We will concede the correctness of this analysis. But our friend the Professor ought to know that bones vary considerably in their composition. Dr. LYON PLAYFAIR says: "The composition of bone varies very much according to the age and character of the animal, generally containing less earthy matter when the animal is young, and increasing in quantity as it grows older." SCHREGER states that the bones of a child contain one-half; those of an adult, four-fifths; and those of an old person, seven-eighths of this earthy matter—principally phosphates. According to BERZELIUS, the bones of a man contain 52 per cent. of phosphate of lime and phosphate of magnesia; those of an ox, 57½. Dr. THOMPSON found 50.6 per cent. in the ileum of

a sheep; 45.2 in the ileum of an ox; and 56.1 in the vertebræ of a haddock. VALENTIN found, 41, 49 and 53 per cent. in different bones of the human frame. CHEVREUL found 50 per cent. of phosphates in the skull of a codfish; DUMENIL, 55 in the bones of a pike; and MARCHAUD, only 14 per cent. in the bones of a *squalus peregrinus*. FOURCROY and VAUGUELIN found 39 per cent. of phosphates in ox bones.

We quote these analyses of bones by eminent chemists, simply to show that they are by no means uniform in composition. Prof. JOHNSTON, himself, distinctly says: "The quantity of inorganic matter contained in bones is not constant. It is less in the young than in the full-grown animal,—less in the spongy than in the compact or more solid bones—and less in those of some animals than in those of others." In a table showing the composition of various fertilizers, he puts down bones as containing "40 to 60 per cent. of ash;" say 36 to 54 per cent. of phosphates.

We said that "dry bones contain, in one hundred lbs., about fifty lbs. of phosphate of lime." Dr. LEE says this is too low an estimate, because Prof. JOHNSTON found 58½ per cent. of phosphate of lime and phosphate of magnesia in the bones of a cow; forgetting that we were speaking of bones in the aggregate, and not of any single specimen. We know that our estimate is not too low, taking the average run of bones. Indeed, it will be difficult to find in market a lot of bones that come up to our estimate. Dr. VORLOCKER, chemist to the Royal Agricultural Society of England, gives analyses of nine samples of bone-dust, which fully bear out the last assertion. The quantity of phosphate of lime and magnesia in one hundred lbs. of these nine different samples was: 42½, 49½, 48½, 48½, 52, 47½, 44, 34½, 45½.

One of these exceeds our estimate by two per cent.; all the others fall below it. The average of the whole is a fraction less than 46 per cent.

The quantity of ammonia was determined in

seven of these samples with the following result: 5.23, 4.18, 3.89, 4.18, 4.39, 5.08, and 5.03 per cent. Three of the samples slightly exceed our estimate, and four fall below it. The average is 4.57, or nearly one-half of one per cent. *less* than our estimate.

The other statement which Dr. LEE criticises is the following. We give the Professor's own words:

"But the most interesting and, it strikes us, extraordinary statement of the editor of the *Farmer* is the following: 'The value of this change (the conversion of insoluble bone into a soluble mass) may be understood by the consideration of the fact that, while insoluble phosphate sells in London at less than one cent per lb., the soluble phosphate sells readily, as a manure for turnips, at eight cents per lb.'

"If the word eight was not printed, and the number expressed by the figure 8, we should have regarded it as a typographical error; for eight cents a lb. for a superphosphate of lime to apply to a turnip crop, is paying \$80 for a thousand lbs., and of course \$160 for a ton of two thousand lbs."

That is so, Doctor! Eight cents a lb. is \$80 for 1,000 lbs., and \$160 for a ton of 2,000 lbs. No doubt about that! But we did not say that what is called "superphosphate of lime" sells in London for eight cents per lb. We said "*soluble phosphate*" sells for eight cents per lb.; and it certainly can not be bought in any market for less than that.

Prof. S. W. JOHNSON, in his valuable Report on Commercial Manures, etc., to the Connecticut State Agricultural Society, says: "Prof. WAX, chemist to the Royal Agricultural Society of England, estimates the worth of soluble phosphoric acid at 10½ cents. per lb. Dr. VOELCKER, of the Royal Agricultural College of England, and Dr. STOCKHARDT, the distinguished Saxon agricultural chemist, reckon it at 12½ cents. They have deduced these prices from that of the best commercial superphosphates. In this report, the price will also be assumed at 12½ cents. This, I believe, is considerably more than it is really worth, but it is probably the lowest rate at which it can now be purchased."

Why this statement of an admitted fact should puzzle the Professor, we were for some time at a loss to comprehend. But by reading another article on "Commercial Manures" from Dr. LEE, in the previous number of his paper, we have discovered the cause of his surprise.

Dr. LEE evidently thinks that what is called superphosphate of lime, and sold under this name in market, is, or ought to be, composed of soluble phosphate—or, in other words of superphosphate. A little examination will show our friend that he is mistaken. The common bone-phosphate of lime is composed of three atoms of lime and one of

phosphoric acid. Superphosphate of lime is composed of one atom of lime, two of water and one of phosphoric acid. To convert the common insoluble phosphate into the soluble superphosphate we have to take away two atoms of lime. This is done by adding sulphuric acid to the bone-phosphate. The sulphuric acid has a stronger affinity for the lime than phosphoric acid, and if sufficient sulphuric acid was added, it would take away all the lime, and leave the phosphoric acid free. But the object is to take away two-thirds only of the lime, and we add only sufficient for this purpose.

The sulphuric acid unites with the two atoms of lime, and forms sulphate of lime. This sulphate of lime, or plaster, remains in the mixture. It cannot be separated. Dr. LEE appears to overlook this fact, and hence his surprise at our statement that soluble phosphate sells in London for eight cents per lb. Superphosphate of lime is not composed wholly of soluble phosphate. It necessarily contains plaster and a *considerable quantity of water*.

Dr. LEE speaks of a "true bi-phosphate of lime when free from water." Now, our critical friend should know that there is no such article, and cannot be. In converting bone-phosphate of lime

Lime (25), lime (25), lime (25), phosphoric acid (72).

into superphosphate of lime,

Lime (25), water (9), water (9), phosphoric acid (72).

the two atoms of lime taken away by the sulphuric acid are replaced by two atoms of water. The water is essential to the change. It acts as a base instead of lime. And it would be just as reasonable to speak of a true bi-phosphate of lime when free from lime, as of a "true bi-phosphate of lime when free from water."*

Speaking of RHODES superphosphate of lime, the Professor says: "Does not the fact that our best American superphosphate of lime has only fourteen per cent. of this substance (soluble phosphate) in it, go far to prove that our agricultural libraries and reading are strikingly defective. * * So long the public mind loves ignorance of the agricultural experience of all mankind, save a man's dear self better than it loves anything else, why should a manufacturer of superphosphates be at the expense of supplying the public with an article that contains twenty-eight or fifty-six per cent. of the thing advertised, when fourteen will satisfy the intelligence of the community?"

* In the manufacture of superphosphate of lime, the calcareous bones should always be mixed with about 75 per cent. of water before the acid is added. We know it is generally recommended to add the water to the acid, but it is much better to thoroughly wet the bones instead. We state this as the result of considerable experience.

Now it is very evident that the Doctor does not know what he is talking about! Let us take two hundred lbs. of animal charcoal (or charred bones), the very best source of phosphates at present known. If it contains 78 per cent of phosphate, it will be a good article. Leaving out of view the three or four per cent. of carbonate of lime which has to be converted into sulphate of lime before the acid will act on the phosphate, let us see what would be the composition of the *very best* superphosphate that can possibly be made from this two hundred lbs. of charred bones.

The 200 lbs. of bones contain 156 lbs. of bone phosphate—composed of 84 lbs. of lime and 72 lbs. of phosphoric acid. To convert this into soluble phosphate, we have to add sulphuric acid enough to take away 56 lbs. of lime. This requires 80 lbs. of sulphuric acid.*

To convert the 156 lbs. of phosphate contained in 200 lbs. of charred bones, then, we add 80 lbs. of sulphuric acid. The mass would then weigh 280 lbs. But the sulphate of lime formed by the union of the sulphuric acid and lime, like our common gypsum or plaster, contains two atoms, or about 21 per cent., of water. United with the 136 lbs. of sulphate of lime found in the mixture, therefore, we have 36 lbs. of water.

Instead of 280 lbs., therefore, the mass would weigh 316 lbs. Again, as we have before said, the two atoms of lime removed from the phosphate of lime are replaced by two atoms of water. In converting the 156 lbs. of phosphate of lime into soluble superphosphate, therefore, 18 lbs. of water are required to replace the lime taken away by the sulphuric acid. This is essential.

In the case assumed, then, we have:

Charred bones.....	200 lbs.
Sulphuric acid.....	80 "
Water (united with the gypsum).....	36 "
Water (united with superphosphate).....	18 "
	334 "

This contains 172 lbs. of sulphate of lime or gypsum and 118 lbs. of superphosphate of lime, composed, as we have shown, of 72 lbs. of phosphoric acid, 28 lbs. of lime, and 18 lbs. of water. In other words, the mixture contains 35.3 per cent. of superphosphate of lime, 51½ per cent. of sulphate of lime, and 13.2 per cent of other compounds of which we have taken no notice in this calculation.

It will be borne in mind that our calculation is based upon the supposition that *all* the phosphate of lime is converted into superphosphate of lime, and that the article is *perfectly* dry—the water being *chemically* united with the superphosphate

of lime, etc. And yet we only get 35½ per cent of superphosphate of lime, or 21 per cent. of phosphoric acid. What, then, does Dr. LEE mean by talking of an article that should contain 56 per cent. of superphosphate? In practice, such an article as we have described, containing only 35½ per cent., can not be made. There will always be more or less water and free phosphoric acid, and undecomposed phosphate, or free sulphuric acid in the mixture. Prof. WAX has made numerous analyses of English commercial superphosphates. The average quantity of superphosphate found in the *best* four samples was about 21 per cent.—13.23 per cent of soluble phosphoric acid. For Dr. LEE, then, to talk about a superphosphate of lime containing 56 per cent. of soluble phosphates is absurd.

COAL ASHES AS A MANURE.

We are frequently asked, "Are coal ashes of any benefit as a manure." That they are of some benefit, there can be no doubt. Numerous analyses of coal ashes have been made. We have now before us analyses of ashes from seven different kinds of coal. They vary considerably in composition, but on an average contain about 45 per cent. of silica, 40 of alumina and oxide of iron, 12 of sulphate of lime or plaster, 2 of magnesia, and 1 of phosphoric acid.

Commercially, coal ashes have no value as a manure. But still they are worth something, and ought not to be thrown away. We have seen them produce quite a marked effect on grass land—perhaps as much from their action as a mulch as from any other cause. On stiff clay lands, they are beneficial by rendering the soil more friable and permeable to atmospheric influences.

It is said they are good as a top-dressing for lucerne and red clover. They are frequently mixed with night soil for the purpose of absorbing unpleasant odors. They are often employed in the garden, more for the purpose of forming walks and to prevent the ravages of mice, than as a manure. Covering early sown peas with coal ashes is said to forward their growth, as they have a tendency to absorb and retain heat from the sun. An experienced gardener informs us that he uses coal ashes for checking the too rapid fermentation of manure in hot-beds, and regulating the heat. For radishes, on a rather heavy soil, coal ashes are very beneficial.

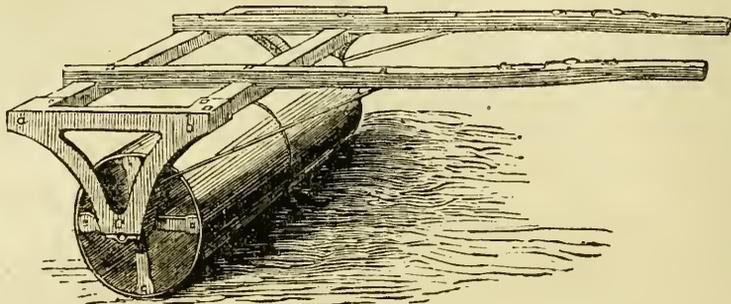
In the *Gardeners' Magazine*, vol. 11, page 406, an experiment is given where coal ashes were sown on a row of turnips, which produced a heavier crop than another row manured with well-rotted dung.

* Equal to about 120 lbs. of common oil of vitriol (Sp. gr., 1.7)

ROLLERS AND THEIR USES.

Our engraving shows an English roller of the latest and most improved construction. The rollers, two in number, are hollow cylinders of cast iron, moving freely on one common axle. The side portions of the framework, *a, b, c*, are also of iron; the rest of the framework and the shafts are of wood. The advantage of having a roller constructed in two or more pieces, is that it has the effect of diminishing that tendency to rub over the

The above English cast-iron roller will cost about \$30—perhaps more. In this country, where wood can be had almost for nothing, and iron is expensive a good smooth log of white oak, or any tough hard wood, fitted with iron gudgeons, and attached to a framework somewhat similar to that on the roller shown in our engraving, will be found to answer sufficiently for all ordinary farm purposes and will cost but the labor of making it, which, if done by a mechanic, would be about \$5.



IMPROVED ENGLISH CAST-IRON ROLLER.

surface, and tear up the young plants at the turning points of the field, which is the great fault of the roller as commonly made—in one entire piece. The value of this roller lies solely in its power of crushing and compressing the soil.

The further division of these cylinders into many pieces, so that the implement became a series of wheels alongside of one another, each having an independent motion, with washers between, and each wheel having a serrated edge, as shown in fig. 2. and as exemplified in CROSSKILL'S clod-crusher, is the nearest approach to perfection to which the roller has yet attained.

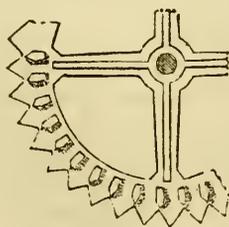


Fig. 2.



Fig. 3.

In this form of the implement is united the crushing effect of mere weight, with the action of a harrow in separating the clods into smaller portions. It is so constructed that the axle is smaller than the slot through which it passes (as shown in fig. 3), so that any one wheel can drop below the level of the others; a great advantage in passing over uneven ground, as thereby no portion of the soil that the implement has passed over can remain untouched.

It is a point of some importance that the diameter of the roller should be increased in proportion to the weight; not that anything is gained thereby: regards its crushing effect on the soil, but because the larger the diameter, the easier it is for the team to draw, and the less liable the roller is to slide over the ground and smooth the surface by burying the clods instead of crushing them. A roller 6 feet long and 3 feet in diameter is preferable to one of the same weight, 10 feet long and 18 inches in diameter.

Another point is, that, for farm work, the roller should be heavy enough to require two horses to draw it, and they should be worked abreast rather than in the English tandem fashion; as, independently of the loss of power in this case, the trampling of two horses in the same track makes a deep impression on the soil that is to be by all means avoided. To this end, it is better to construct the framework with a pole instead of the shafts, shown in our cut.

There are also rollers of other forms of construction, viz: the spiked roller, formed by inserting several rows of spikes in a common hard-wood roller—this is used for pulverizing stiff soils in summer fallowing; the concave or scalloped roller adapted to the form of ridges, and used for compressing the drills of carrots, turnips and mangewurzel, and to press the soil to the manure that has been left under the drills. It is sometimes used after the seed has been dropped by hand or a seed sower, and for this purpose it is often attached to a turnip drill.

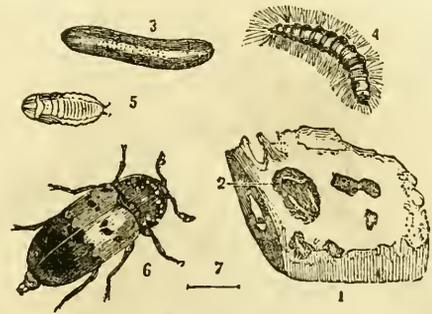
The uses and advantages of the roller are many and important, and no good farmer should be without one. It is almost superfluous for us to point out the various uses to which it may be applied. To crops planted on a newly turned sod, the roller is indispensable, as, by pressing down the sward, it promotes decomposition, and causes the crop to feel, at an early period, the invigorating effect of the manure so produced.

We could adduce numberless instances where the superiority of rolled crops has been manifested over those not so treated; but we will be content with enumerating a few obvious advantages of the implement. In spring, it smooths the meadows and sinks the small stones out of the reach of doing damage to the scythe or mower; presses the roots of winter wheat and clover, that have been partially heaved out by the winter frosts, into the ground again; makes barley and spring wheat tiller out more; and breaks the newly formed crust on the surface, thus admitting air and moisture to the roots. Even corn and potatoes are benefited by being rolled immediately after planting, especially on loose, porous soils. On light lands, it is especially useful in compressing and rendering the soil more compact; and on heavy clays, it should follow seeding, to break the clods, and a harrow may be afterward run over the ground to loosen the surface again, should it appear to have become too compact. Lastly, it may be employed on summer fallows, to crush and kill the weeds, and on country roads, to pack and settle them after the performance of the usual annual repairs.

Under whatever circumstances or for whatever crops the roller is to be used, care must be taken that the soil is in the right condition to be benefited by its use; neither too wet nor too dry—or, as an old farmer we knew used to say, "it shouldn't leave dirt pancakes as it travels along, nor be pressed in a green jacket."

A box attached to the hind part of the frame will be found useful for collecting loose stones in when rolling grass lands, or to add to the weight of the roller on very cloddy soils; although it will at the same time require a greater amount of power to draw it in that case than if the weight had been applied in the roller itself, by reason of the extra amount of friction thus thrown upon the axles.

OIL CAKE FOR HEIFERS.—It is said that if heifers receive a little oil-cake (say 2 lbs. per day) for two or three months before calving, their milk vessels will acquire a larger development, and their milk-qualities be much improved.



BACON BEETLE.

THIS insect, *Dermestes lardarius*, is one of the greatest pests in the kitchen and pantry of many farm houses. It does not confine itself to feeding on bacon, but also devours hams, cheese, etc. Fig. 1 represents a piece of bacon eaten into holes by this beetle. At 2 are seen its eggs in one of the larger cavities; (3) is an egg greatly magnified. The eggs hatch into little red, hairy larvæ, which, in a month, become full-grown (4); having moulted several times, leaving their skins in the bacon upon which they feed, they transform into pupæ (5). In August, the beetles (6, magnified; 7 natural length) make their appearance, and remain at work through the winter. This beetle is dull black, with a pale, buff-colored band across the elytra, on which is a line of black spots. The thorax is speckled with white, and it has six legs and ample wings, so that it can fly at night from one place to another.

In England, where these pests are a far greater evil than here, it is common to tie bacon up in brown paper bags, so made that there is not the smallest aperture for the beetles to get through to reach the bacon. It is said that where bacon is infested by these beetles and their larvæ, if a dead mouse or small bird is hung up near the bacon at night, these pests will resort to them; and by shaking the dead carcass over a basin of hot water every morning, the whole brood will soon be destroyed. We have known bacon to be packed in dry ashes, as a protection against these beetles, but the bacon absorbed potash and acquired a bad flavor. In England, bacon is kept in dry malt, but this is a remedy not generally applicable in this country. Hams are usually tied up in canvass bags, whitewashed on the outside, as a protection against this and other insects.

CARE OF LAMBS.—The profit to be derived from keeping sheep greatly depends on the care taken of the lambs during the spring months. They should be kept with their dams separate from other stock.



THE EARLY SHORT-HORN CARROT.

WE give an engraving of this carrot, which is esteemed the best of all the tribe for table use. It is of a very fine flavor, and commands a ready sale in market. Americans do not sufficiently appreciate the carrot as an esculent; mainly because the kinds commonly grown are too often inferior varieties. The Short-horn carrot grows rapidly and matures early. The young carrots when but small, are highly esteemed for flavoring soups, gravies, etc. This carrot can be profitably grown as a field crop for marketing, near cities and large towns. The most suitable soil for carrots is a light, rich, sandy loam. Manure, if used, should be well rotted; otherwise the roots become fangy.

It is of great advantage to germinate the seed before sowing, by mixing it with fine sand. The mixture is laid in a heap, where it will not freeze, and occasionally watered, for a period of two or three weeks, and then sown in drills on the ground prepared for its reception. By adopting this plan, the seed may be sown later than otherwise, and the young plants then come up quickly and are enabled, in a measure, to get the start of the weeds.

SOWING PLASTER.—The addition of a little salt and unleached ashes to plaster for clover, has the effect of giving the clover an early start and attracts and fixes the ammonia from the atmosphere.

SPIRIT OF THE AGRICULTURAL PRESS.

RAISING CALVES.—JOHN JOHNSTON, in the *Country Gentleman*, thus gives his method of raising calves: When they are a few days old he commences giving them oil-cake meal or barley meal in their milk. This is continued until they are 3½ or 4 months old, when they are turned to pasture. He also feeds them cut hay or cut grass, from the time he first begins to feed them until they go to pasture. He thinks early cut clover hay is better than pasture for calves. The following winter, he gives them good clover hay, with a pint of oil-cake meal each per day. The next summer, they have good pasture. As soon as the pasture fails, they are taken to the yards and fed hay or corn-stalks, with the addition of two quarts of oil-cake meal per day to each calf. In this way his calves realize him from \$47 to \$60 each, when 20 to 22 months old; whereas, had they been raised on the common shiftless plan adopted by many farmers they would not have been worth half that sum.

THE BENEFIT OF KEEPING THE SURFACE SOIL MELLOW.—The *Country Gentleman* claims that if the surface soil around a young fruit tree is kept mellow, and daily stirred through the growing season to the depth of only one or two inches, the growth of the tree will be more than double, an sometimes quadruple what it would have been had the soil remained undisturbed, or been kept in grass. This stirred soil acts as a slight mulch, and prevents the evaporation of the moisture in the soil during the hot days of summer and the too great radiation of heat at night. On the same principle, it advocates the application of a surface coat of manure on winter wheat in autumn, and the mulching of all dwarf pear trees at the approach of winter.

EVERY FARMER SHOULD HAVE HIS WORKSHOP. So says the *Wisconsin Farmer*. And every farmer should be mechanic enough to mend all the small breakages that occur on the farm, instead of losing time and patience in sending to the village to have the work done. Besides this, when a wet day comes, the boys will interest themselves in learning to become practical mechanics, instead of moping round the house.

SEED CORN.—PRESTON EARLE, in the *Rural Register*, says he has been in the habit, for several years, of soaking his seed corn in a solution of copperas and saltpetre, and thinks it has been the means of preventing the worms from attacking the young plants at their first start in life. Have any of our readers tried this?

THE ALPACAS IN AUSTRALIA.—The *Sydney Morning Herald*, of November 12th, 1859, gives an account of the shearing of the flock of Alpacas recently brought to that place by Mr. LEDGER. The wool was cut off with knives, Peruvian fashion, and the weight of the fleeces exceeded the most sanguine expectations. Two of the fleeces were weighed separately. The fleece from a black Alpaca weighed seventeen lbs., and that of a white one weighed twelve lbs. The flock has doubled in numbers in the fourteen months since they were imported, and they are thriving well. The lambs born in the colony appear remarkably healthy and strong.

APPLYING MANURE TO CORN.—A correspondent of the *New England Farmer*, who uses manure from a barn cellar, without any admixture of straw, thus gives his method of applying it to sward land for corn. He spreads it in spring upon the ground plowed the previous fall, at the rate of fifteen to eighteen cords per acre, and then gives it a thorough harrowing, so as to mix it with the surface soil. Then, just before planting, he plows the ground to a depth of from three to five inches, harrows it and plants the corn. In this way he has raised on an average from sixty to seventy bushels of corn per acre.

AYRSHIRES AS MILKERS.—The *Springfield Republican* says Mr. BIRNIE, of Hampden, Mass., keeps a large herd of Shorthorn and Ayrshire cows, and gives a decided preference to the latter as milkers. In proportion to the food they eat, he says no breed can surpass them in yield of milk. He has one Ayrshire cow weighing about 800 lbs., that has averaged more than her weight per month milk since April last, and a two-year-old heifer, the daughter of the above cow, that is now in milk, and gives 20 lbs. per day.

ADVANTAGES OF SPAYING COWS.—Dr. DADD, in the *American Stock Journal*, says that the milk of spayed cows gives more cream than ordinary milk, and that the butter made from it is more delicious taste. The milk is also invaluable for nursing infants. He thinks there is no danger in performing the operation, if skilfully done and the animal is under the influence of sulphuric ether.

COST OF KEEPING SHEEP.—The *New England Farmer* states that Mr. ELLIOTT, of New Hampshire, estimates the cost of keeping sheep at \$1.50 per annum each, and that each sheep would make half load of manure during the winter, besides the benefit done to the pasture by the droppings left thereon.

PROFITS OF KEEPING GOOD SHEEP.—Mr. WHITE, of Kent Co., C. W., writes us: "I have a small flock of Leicesters, 43 in number. Last year I got 249 lbs. of clean-washed wool from these 43 sheep, of which quantity, 7 yearlings gave 63 lbs. From 18 ewes I reared 36 lambs."

Now we will estimate the profit of such a flock. The wool may be estimated to be worth 28 cents per lb., which is about the price it would fetch on the farm in that county:

249 lbs. of wool at 28 cents per lb.....	\$69 72
36 lambs at \$2 per head.....	72 00
	\$141 72
Cost of keeping may be estimated at \$1.50 per head.....	64 50

Leaving a net profit of..... \$77 12
 Equal to \$1.80 per sheep, for one year only. In a series of years the profits would be greater. The lambs, when full grown, would be worth \$5 each, and the sheep would probably sell for as much more than cost as would cover the interest on the first outlay.

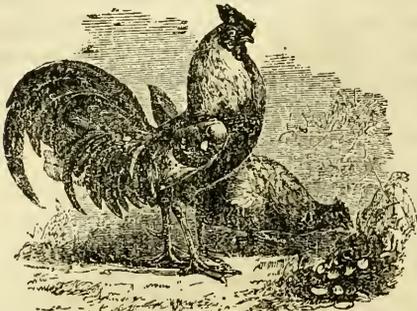
SALT AND PLASTER TOGETHER.

EDS. GEN. FARMER:—In your February number, LEVI BARTLETT advocates the use of plaster for timothy. Now, I would recommend Mr. SHAW to try a mixture of salt and plaster, at the rate of four bushels of salt to two of plaster. This I have tried and found beneficial. For potatoes, my rule is to mix one bushel of salt to four bushels of plaster, and put a tablespoonful on the potatoes in each hill at the time of planting.

As I live near the Onondaga salt springs, I have been experimenting with salt on various crops. I was told that salt would kill my grass and grain; I determined to know how much salt it took to do that, and I commenced with half a bushel to the acre, and every year I have added another half bushel, always mixed with two bushels of plaster, and now I have got to sowing salt at the rate of four bushels per acre, and find this quantity pays the best. Last spring, I sowed eight bushels of salt and four bushels of plaster on two acres of wheat, and the result was a beautiful crop. After deducting one-quarter of an acre killed by the frost and thrown away, the balance produced 42 bushels of good wheat. I have tried salt on almost all soils, and think it is as indispensable to my land as the *Genesee Farmer* is to my house. J. N. H.

Salina, N. Y., February, 1860.

MARKING SHEEP.—In answer to the inquiries of J. S., in the February number, I will give my method of marking sheep, so as to know their age at sight. Use a mark arranged in ten different ways, on the ear—each way answering to one of the nine digits and cypher. Commence with this year, and use the mark denoting the cypher; marking your lambs at the time of docking and castrating. Next year, use the mark answering for the first digit, and so on till the year 1870, when again commence with the cypher. By these marks, you can tell at any time in what year such a sheep was lambed, and by a little "head work," can easily ascertain its age.—J. J. S.



COCK OF THE WALK—GAME FOWL.

To those who regard the Jungle fowl of India as the common ancestor of all our domestic cocks and hens, the Game fowl naturally suggests itself as the first link in the genealogical chain. An English writer on poultry says: "Some of our breeders, indeed, would derive our black-breasted Red birds from what is commonly called the Bengal Jungle fowl, while the distinction of a separate descent is claimed for the duck-winged, from another variety of wild birds, *Gallus Soneritii*, an inhabitant of Southern India, whose more varied plumage bears a strong resemblance to this beautiful variety." But inquiries of this kind, though very interesting, we will leave to the naturalist. Our present task is with the English Game fowl. In England, he has long held a high post of honor, and in some instances pedigrees and stud-books, running back over a period of more than one hundred years, testify to his unstained descent from birds of note and fame in other places than the poultry-yard. The ardent temperament and high courage has contributed to confer a degree of interest upon this family of birds which has probably been shared by none besides. Although the fowl was found in a domestic state in Britain, at the time of the Roman conquest, it is probable the Game breed was introduced after that event. It is said by MARTIN, "that the Greeks possessed several renowned breeds of Game fowls, and that Media and Persia possessed other of first-rate breeds." It is thought that the Game fowl was introduced by the Romans, who are supposed to have derived it from the Persians, when Britain was a Roman colony.

Of all the domesticated breeds which are believed to retain, in a striking degree, their original character, the Game fowl is entitled to the first rank. MARTIN says: "The Earl of Derby possesses a breed which has been in the possession of that noble family for many generations, and which is sedulously preserved from base alloy." All nations, where men have advanced beyond the savage state, appear to have had a taste for Game cocks, and both Christian and Pagan have alike taken pleasure in witnessing their prowess. It is not wonderful, then, that he should have been a favorite equally with the refined and intellectual Greek and the hardy and daring Roman.

Little need be said as to the accommodations necessary for Game fowls. A good grass run is essential, and we can not advise their being kept by any who are unable to grant them this indulgence. They are impatient of restraint, and never

appear in really good condition when debarred from the country exercise that seems required by their hardy constitutions. In suitable locations, they are kept at very small cost; for, when indulged with a good grass walk, a little corn morning and evening, is found sufficient to keep them in good order. They are thus well suited to the common farmer's present system of poultry-keeping; for, after ten weeks or three months old, the greater part of their food is procured abroad, and their owner's corn but sparingly required. Yet kill a game fowl when you will, it is always in good condition; and thus, when fowls are not put up to feed, they afford a ready supply whenever they may be wanted. If any of our readers should desire the *ne plus ultra* of excellence in a fowl, let him eat and pronounce his opinion on the wing of a well-fed Game pullet, and we should have no fear of his disagreeing with this expression of our judgment of the good qualities of these birds for the table. As layers and sitters, Game hens have no superiors. Quiet on their eggs, regular in the hours of coming off and returning to their charge, and confident, from their fearless disposition, of repelling the incursions of any intruder, they rarely fail to bring off good broods. Hatching accomplished, their merits appear in a still more conspicuous light. Ever on their guard, not even the shadow of a bird over head, or the approach of a man or beast, but finds them ready to do battle for their offspring. Instances are on record where rats and other vermin have thus fallen before them. The chickens feather rapidly and with ordinary care and a liberal and varied diet, such as chopped eggs, with a portion of onions chives or leeks, bread crumbs, grits, boiled Indian meal, bran, and wheat screenings, with some new milk in the earlier stages of their growth, are reared with as little difficulty as those of other fowls.

It is allowed, by most persons, that a Game cock in full health and vigor, is, after all, the *beau idea* of a fowl—the true aristocracy of the genus *gallus*. He is, among poultry, what the Arabian is among horses, the high-bred Short-horn among cattle and the fleet Greyhound among the canine race.

Springville, N. Y.

C. N. BEMENT,

SURFACE MANURING.

EDS. GENESEE FARMER:—I have often thought would send you my experience in surface manuring. Most of the agricultural writers recommend the manure to be hauled out and plowed in immediately. Until some few years ago, I was engaged in other pursuits, but having become the owner of some land in Kent county, I began tilling the land according to my views on the subject. All the manure I could get was put on the grass land intended for corn the following season. Stable manure, and the manure from the cow-yards, were all cleaned up as soon after the spring rains were over as possible, whether rotted or not, and applied as above. During the year the same course was pursued. The corn was cut off and the ground sown in wheat. If I had any manure fit for wheat at seeding time, it was spread on the surface after the land was plowed, and harrowed or drilled in with the wheat. By this way of manuring,

succeeded in raising fair crops of corn and wheat (the land being very poor). Clover was seeded on the wheat, and lime applied on the clover, to be pastured and surface manured for the next corn crop. This season, I have raised near thirty bushels of wheat from corn ground so manured. My neighbors are beginning to think my way of manuring has something in it, although they enjoyed a good many jokes at my folly in putting out manure for the sun to dry up and the rain to wash away. I have followed the same system now for ten years, and shall continue to do so. I am now cultivating several hundred acres, and seed wheat on fallow, but use my manure on the grass for my corn crop the succeeding year.

Rus Corner, Kent Co., Md.

ABEL V. RUS.

ON BREADSTUFFS.

EDS. GENESEE FARMER:—There are certain insects which can only live on a single plant; the cabbage butterfly grub, the willow moth grub, and many others, live exclusively on the plants from which they derive their names. Certain nomadic tribes in South America live exclusively on nuts (Brazil nuts?), and until late years the bread-fruit furnished food almost exclusively to certain people in the Pacific Islands. But that civilized people should live so very exclusively on one of the cereals—wheat, that its threatened destruction should cause the panic that prevailed throughout Canada and the Northern States of the Union, shows either that our choice of breadstuffs was sadly limited, or that there was “some fault somewhere.”

I admit candidly that this reliance solely on wheat is not confined to this continent, that it is much worse in England, and not very different throughout Europe; but, as two blacks do not make a white, and as we do and can raise Indian corn or maize—a native grain—in abundance, which can not be grown in England, I think I am quite justified in asserting that, on this continent, to exclusively use wheat for our bread, is as absurd as it would be to use beef alone for our flesh meat, salmon alone for our fish, and turkeys exclusively for our poultry. They are undoubtedly the best of their kinds, and the most desirable in many respects; but other quadrupeds, fish and birds are eaten and enjoyed. Vegetables we eat of various kinds (perhaps a little too much given to the potato), but it is in bread and kindred preparations only, that we adhere to wheat alone.

I am of course aware of the existence of hominy, samp, johnny-cake, mush and kindred preparations. I am also quite acquainted with the “corn and rye” bread of New Jersey, and of the rye and other bread made by our German settlers; but these are exceptions, and, unless in very limited localities, every one wants wheaten bread.

Now again, I confess wheat to be the best “breadstuff,” when properly prepared. It is just about as nourishing as the rest of the cerealia, and is very agreeable, and, above all, “ferments,” and makes “bread,” properly so called. All this is admitted, and no more need be said in the matter. But the same might be said of beef, salmon and turkeys, and still mutton, pork, lamb, chickens, ducks and geese are eaten. Why then should not Indian corn, barley, oats, peas and beans form the daily food of every one?

“To those who have crossed the seas the horizon may have shifted, but the mind remains the same.” I may add that governments may be altered and the people remain the same. The idea of *gentility* attached to the use of wheaten bread, now some four or five hundred years old, has more to do with the matter than is commonly thought. In the thirteenth and fourteenth centuries, bread was made from rye, oats, barley, beans and peas, either separate or mixed; sometimes sown and reaped together, called *meslin*; sometimes mixed, sometimes pure, but *always* coarsely ground and roughly prepared. Wheat, on the other hand, was always ground tolerably fine, and made into *manchets* and various other forms of fine bread, and also into pastry. If used by the middling or poorer classes, it was ground coarse, and generally consumed by Christmas; after which rye or barley bread, then bread made of oats and peas, then oats, peas and beans, and, if there was a late harvest, at last beans and straw with mill offal. The fine wheat flour bread was always the delicate food, the luxury, the genteel diet.

Now when, by a greater equality of condition, better agriculture and better grinding, wheat flour became attainable, all classes wanted it and rejected all other food. Improvements in grinding took place in wheat only; those who consumed the coarser grains, used them as their ancestors did—nay, boasted how they preferred the coarse meal of their ancestors; the Scotchman prides himself upon his coarse oat-meal, and the New Englander on his using the coarse meal his forefathers learned to use from the Indian.

Now, it is all this I wish to combat, to show that we can prepare bread—really such—from other grain besides wheat, and that very many articles of luxury may be manufactured totally independent of that grain; so that if ever again visited by the destruction of the wheat crop, we may feel capable of waiting patiently until the scourge is over.

Wheat flour is prepared of various degrees of fineness, and the tendency lately is to use the finest only. The reason of this is chiefly that where the bran, shorts or middlings are left in, either in the usual state or where ground over, the flour has a tendency to get sour. Spring wheat flour is particularly subject to fermentation, and sells at a low price in consequence. The flour containing re-ground offal, or made from spring wheat, is much more nutritive and ferments easier than pure fall wheat extra flour, but *will not keep*.

Now, the only remedy for this is the kiln. Not to dry the wheat, for then it grinds badly; but to dry the flour until the want of moisture makes it keep “in any climate,” would enable the North and West to send their flour to the West Indies, would make it sell in the place of the “Southern” brands, such as the “Charleston Mills,” and other noted descriptions, and, in short, would make “Western spring wheat flour” as useful as “Pure Genesee,” made from “Canada white wheat.”

As the kiln is absolutely necessary in preparing “flour” from all other grains besides wheat, and especially from Indian corn, I begin with this. We must have flour kilns. These kilns can be made in different ways. Inclined planes, shifting to different degrees of steepness, on the top of hollow chests filled with steam; hollow tubes filled with steam, having external screws to push the flour from the

stones to the coolers, and many other contrivances' only, if possible, always using steam as the drying medium.

Wheaten flour, as I before remarked, is not only nutritious and palatable, but ferments and makes "bread." The other grains, with the exception of rye and buckwheat, do not. Hence, Indian corn makes "cakes," but, without a certain portion of rye, will not make bread. But I insist that much of the prejudice against corn arises from the mode of preparation. Hominy, samp and meal all answer well for certain uses, but they are quite unfit for bread. The old idea of coarse grain requiring to be ground coarse, still holds good. Even sifted meal does not answer; we want "double extra superfine" corn flour. Not corn starch,—all the zein, the really nutritive principle is taken out of that, and given to the hogs. What we want is really fine-ground and finely bolted corn flour; white corn, if possible, and the hardest procurable.

Wanting for my wife some corn meal for mush, I, finding I could get none in Montreal, applied to a Scotch friend who had a brother, a miller. He took some "white Canada corn," grown on the Island of Montreal, and, not understanding what was wanted, made "superfine flour" of it: It was useless for mush or porridge, but it answered for pastry, puddings, and other similar purposes, better than the very best wheaten flour.

Now here is a use for large quantities, better and far cheaper than wheaten flour, much more wholesome; and, as with pastry, puddings, and such purposes, no fermentation is looked for, Indian flour would fill the place now usurped by spoiling the best wheat that Canada can grow. I may add that corn flour of this character has been introduced into England, and has taken well. Surely, in America it ought not to be neglected.

Rye and Indian bread is common in New Jersey, and many parts of the Union. Rye bread is also used in very many parts of Europe. The same fault—coarse grinding and want of sifting—prevails universally. The man who will have his wheaten bread as white as snow, uses black rye bread; and even if the rye flour is fine, the corn mixed with it is only ground to meal. Make them *both* fine,— "double extra superfine" all the better—and you have a loaf nearly equal to a wheaten loaf. But to have the flavor, add one-third wheat bran, or shorts, or middlings re-ground; say, one-third Indian corn, one-third rye, and one-third wheat middlings. Grind fine, bolt equal to extra superfine, and kiln-dry to make it keep, and I will engage that as good a loaf as any one can want will be the result.

Buckwheat ferments and makes, as we all know, good cakes. Were rye unattainable, or dear, it might be substituted, or form one of four, namely: rye, buckwheat, corn, and wheat offal. Oats might take the place of corn in cold climates, or, with barley and peas or beans, could be employed together. Peas and beans being fermentable in some degree, should be employed where more than one-half of either corn or barley is used. In this way, many mixtures might be employed, all finely ground, very finely sifted, and kiln-dried. The offal is of course useful for cattle, sheep, horses, or swine, and the occasion for alarm in the event of the partial failure of the wheat crop, perfectly removed.

The mixture of one third each of corn, rye, and wheat offal would be the most approaching ordinary wheaten bread. Corn, rye, buckwheat, oats, and wheat offal, the next best, and any quantity of beans or peas, even if balanced by barley, though nourishing, would be coarse.

I have mentioned what I consider might be the uses of pure double extra corn flour, namely: pastry, puddings, such as suet, plum, and others, now always made from wheat flour, and all sorts of custards and blanc manges, far better than corn starch.

Barley, first hulled and then ground and sifted, makes delicious articles, like sago and tapioca, blanc mange and jellies, and for soup is far before pot or pearl barley.

Superfine oat flour makes excellent puddings, gruel, and various other articles for the family and sick-room.

These last two articles are prepared in England by a Mr. ROBINSON, and sold in Canada at a very great price. Surely, we ought not to have to resort to Britain for oat and barley flour.

In England, rice flour is used for many articles of luxury, but here it seems unknown.

Peas made into fine flour, are far better for soup than whole or split peas, and even, if grown on good soil or with plaster, boil down, which the others will not do. Pea flour makes most excellent puddings to eat with meat, and the Scotch use it to cure dyspepsia.

I know nothing of the flour of white beans, but can easily imagine it to be good for soup and for pudding under pork. This I must leave for trial.

I now drop the subject. I do not pretend to have exhausted it, although I may your patience I hope some one will take it up and vastly improve upon it, and that a variety of bread may, ere very long, be as common as a variety of meats.

Toronto, C. W., January, 1860.

J. T. BRONDGEEST.

VALUE OF MARSH MUCK TO LIGHT LAND FARMERS

EDS. GEN. FARMER:—Two important problems the American farmer has to solve, are how best to maintain or increase the fertility of his soil; and how best to mitigate the disastrous effects of summer drouths. The valuable report of Prof. JOHNSON on the nature and value of peat and muck, afford considerable aid in these inquiries, and is calculated to be of very great benefit to those who are in position to profit by its teachings.

Hereaway at the West, so far from the sea-board that guano and other commercial manures are scarcely available, and with few cities and many factories in our midst affording extraneous supplies of matters suitable for manure, it is of vast importance to know that we have in our marshes an inexhaustible supply of enriching and moisture-supplying material, which may be had for the trouble of digging.

In a paper on vegetable physiology applied to farm plants, published in the Transactions of our State Agricultural Society for 1853, when speaking of the food of plants and whence it is derived, directed attention to the value of the muck of our marshes, as an absorbent of urine and to compose with yard manure; that, unlike the comparative barren peat used for similar purposes in Great Britain, from the time of Lord MEADOWBANK down

to the present day, this muck, from the luxuriant vegetation it naturally produces when relieved of stagnant water, is evidently rich in the food of plants; and owing to this, and to its power of absorbing and retaining atmospheric ammonia, which the lighter soils of our oak openings probably possess only to a very limited extent, I considered that if it was applied even alone on these soils it must prove beneficial.

A neighbor, who happened to be something of a politician as well as a farmer, had one of these "public documents" sent to him, (with Senator WIDEAWAKE's compliments, of course,) and his son wisely resolved to put this notion respecting the utility of muck to the test of experiment. He accordingly hauled two or three loads, and spread it on a certain spot on a sandy field. The field was subsequently sown to clover, and, the following summer proving dry, effects similar to those witnessed by Mr. JOHNSON on the farm of Mr. POND, were produced. The clover was mostly burned up; here and there might be seen a miserable plant struggling for existence; while on the spot where the muck was spread,—thanks to its moisture-imbibing rather than its ammonia-absorbing nature—the clover was growing luxuriantly. The old gentleman, considering this a useful practical lesson, took several of his neighbors to see the result, and told them truly that their marshes, which some of them were disposed to grumble so much about, were in reality, if proper advantage was taken of them, the most valuable part of their farms.

Another neighbor, who cut a ditch through some bottom land, hauled the muck thrown out on to a sandy field, and the corn produced by that field the year after was allowed to be the best in the neighborhood.

On the main road to our chief trading-place,—Portage City—I noticed that a heavy dressing of marsh muck had been applied to several acres of a sandy field last fall, so that soon, like writing with ypsom on clover, they who run may read.

I am anxious, however, that farmers generally throughout the United States may have an opportunity of reading again and again, by their firesides and at their leisure, this report in its entirety, and has become thoroughly convinced, by the reasons so clearly set forth by Prof. JOHNSON, of the immense value of these muck deposits. And, with that object in view, I desire to suggest—and this is the main object of my writing—whether it would not be well to publish the report by itself, in a cheap form, and then when published, to let it be known through the medium of the advertising columns of all farm journals, that such a work has been prepared for the farmer's use and instruction, where it may be had, and at what price?

I find no mention in your extracts, whether, in the numerous samples of peat and muck sent to Prof. JOHNSON, any were found on examination to contain salts of iron injurious to vegetation. I have noticed an ochrey deposit in summer where water flows to my marsh from the upland, and unmistakable signs of the presence of iron in muck have dug and used; but, from the results produced, it must be in some harmless state of combination.

In your interesting memoir of Mr. BATES, it is said he thrice applied composts of peat and yard

manure to his land, and that the first proved beneficial, the last injurious; the successive crops of turnips, barley and clover being comparative failures; but when a heavy dressing of lime was applied to the land, the succeeding oat crop proved a very great one, and the field afterward continued very productive. Lessons in chemistry received at Edinburgh taught Mr. BATES that the peat contained a large proportion of the oxide of iron, which destroyed the stable manure and did the harm, and that lime converted this into a beneficial manure.

Is this correctly stated? There are two oxides of iron usually met with in soils. The first, or protoxide, is considered injurious to plants, and often exists in peat bogs in Great Britain; but chemists tell us that this salt rapidly absorbs oxygen when exposed to air, and thus becomes converted into the second, or peroxide, which is held to be harmless, or even beneficial; for it is said to have the power, in common with clay and decayed vegetable matter, of absorbing ammonia, and retaining it for the use of plants. There are very few more naturally fertile arable soils than those formed by the disintegration and decay of the new red sandstones, and their red color is considered to be owing to the presence of iron. Of soils remarkable for their fertility analyzed by SPRENGEL and quoted by LIEBIG, one which had produced beautiful crops for 160 years, without being manured or allowed to lie fallow, contained 6.5 per cent. of peroxide of iron, and the surface soil of a field in Belgium, distinguished for its fertility, afforded 8.31 per cent. of peroxide and protoxide of iron. Besides these, there is another salt,—the sulphate of iron—the green vitrol of commerce—which exercises a decidedly poisonous influence on plants. This is frequently met with in British peat bogs; and lime effectually neutralizes this salt and deprives it of its injurious action.

It sometimes occurs in soils other than peat. SPRENGEL mentions a case where sainfoin and lucerne could not be grown successfully beyond two or three years, and the subsoil was found to contain upwards of one per cent. of sulphate of iron, which was the cause of these deep-rooted plants perishing. While in Edinburgh, a friend in Lancashire sent me a sample of soil from a part of his garden where nothing could be persuaded to grow satisfactorily, and peas, when sown in it, perished without vegetating. This soil was so largely saturated with sulphate of iron that its presence was sufficiently obvious to the sense of smell immediately the box containing the soil was opened. Now lime is known to have a very beneficial effect, if mixed with peat, or applied to soils containing sulphate of iron. Lime decomposes this salt. The sulphuric acid combines with the lime, forming sulphate of lime, or gypsum, which is useful to many plants, and protoxide of iron remains, which, by exposure to air as above stated, rapidly absorbs another equivalent of oxygen, and is changed into the harmless peroxide. JNO. TOWNLEY.

Moundsville, Wis.

It is now a well established fact that the orchard is the most profitable part of the farm, if due care is taken in the selection and planting of the trees, and they are afterward properly pruned and cultivated.

NOTES ON THE FEBRUARY AND MARCH NUMBERS OF THE GENESEE FARMER.

BONES AS A FERTILIZER is the leading article in the February number, and it contains about all that need be said in preparing them for use. It is but a few years since the attention of our farmers was called to the value and importance of ground, or otherwise prepared, bones as a fertilizer. In many districts of the long grazed and cultivated portions of New England, there is evidently a great deficiency of the phosphates in the soil. The truth of this is well illustrated in the eagerness with which cows and young cattle, in these older sections of the country, seek out and chew old bones for the half-hour together. They are afflicted with what is termed the "bone disease," arising from a deficiency of the phosphates in the hay and grass upon which they subsist. Such diseased cattle find a remedy in eating bones. Instinct directs them to this, the same as it does with their tongues to lick an old pork or fish barrel for its salt, when they have long been deprived of it. In some places, ground bones or fine bone dust is regularly fed to them with their salt, twice a week. It will be well for farmers, both in the older and in the newer sections of our country, to save all the bones within their reach, and in some form or other apply them to their land. They will all be wanted in the soil sooner or later. "Gather up the fragments, that nothing be lost," is an injunction not yet outlawed.

LARGE YIELD FOR TWO ACRES.—Eighty bushels of corn per acre the first year, and four hundred bushels of potatoes per acre the second year, and seventy-two bushels of barley per acre the third year, are certainly very fair crops. But Major DICKINSON's system of irrigation explains all mystery, if there is any, about these large crops. He has been doing for his irrigated meadows, what nature has been doing for thousands of years for the annually overflowed soil of Egypt, and for over a hundred years on the two or three times annually-clipped grass meadows bordering on the Deerfield river in Massachusetts, and the sixty years corn-cropped bottom lands of the Scioto in Ohio. The time will come when thousands of other farmers in every State will follow the Major's system of irrigation. His precepts and example in this matter will not be lost.

WHEAT FROM THE SOUTH.—There has been much discussion in agricultural papers, within the last twelve months, upon the "seed wheat question." Some varieties of wheat ripen (when sown side by side) from ten to twenty days earlier than others. The early maturing of a variety is the result of an inherent quality in that variety, and it will exhibit that quality wherever grown, North or South. The *Early May* and the *Early Japan* are illustrations of this.

WAGON TIRES.—We don't use wagons very much for farm purposes "down in this region." Ox-carts are preferred. Formerly, 2½ or 3-inch tire, with deep felloes, were mostly used. But these narrow wheels have gone out of fashion, and the tire is four or five inches wide. With such wheels, there is little or no "cutting in." "The broad tire rolls over the green sward, scarcely leaving a trace of its onward progress." The wheels are about 5 feet across, felloes 2½ inches thick, with the inner

corners handsomely bevelled off, and generally well painted. With fair usage, and housed when not in use, these wheels will last a lifetime.

WOODLAND (by A. B. C.)—The early settlers of this country had two enemies to contend with, viz: the Indians and the forests. To exterminate these was doing, as they supposed, the country much service. The Indians have been gone from the old States a great while, and, for many years previous to the introduction of railroads, the indiscriminate waste of our wood and timber had been stayed. But the introduction of railroads has afforded a market and conveyance of wood, timber and lumber to the manufacturing places, and to the seaboard without a single thought for the future. This "devil take the hindmost" policy is all wrong, and our successors will find it so.

AMUSEMENTS FOR FARMERS AND THEIR FAMILIES. Mr. PIERCE's views upon this question are "first rate." Hope he has been blessed with a dozen or more children, and that he practices toward them as he preaches. Whether the home of the farmer is pleasant and attractive to his children, or otherwise, depends very much upon the parents. No children ever loved home any the better for being eternally scolded at. Scolding, like smoking and chewing tobacco, is all a matter of habit. I knew of an old lady in an adjoining town, who was so much in the habit of scolding that she could not read a chapter in the Bible, without *scolding it out*.

The March number of the *Genesee Farmer*, with its "Some Hints on Spring Work" for a leader, is so near perfection, that I have no wish either to add to or subtract from it. It is timely, concise, and to the point.

CLUB-FOOT IN TURNIPS, CABBAGES, ETC., played the very dence with my *Suedes* last season. I can raise sound ones only on newly inverted sod lands. I shall not sow any on old ground again.

BREEDING AND REARING FARM STOCK, by Mr. TALCOTT, is a good, common-sense article, that commends itself to the especial consideration of that class of farmers who begrudge their stock a nubbin of corn or a quart of oats, because these can be sold at the store or tavern. The turning of skeleton cattle out to pasture in the spring is neither humane nor profitable.

BEST FOOD FOR LAYING FOWLS.—If any one can tell what is the best food for laying fowls, I think Mr. BEMENT is the man. Some persons with a dozen hens scarcely obtain an egg from them from November till April; others, perhaps next door neighbors, will have a good supply for use and for sale during all the winter months. Is the difference in the breed, or feed? It would be well for some people to inquire into this matter; it might "from many a blunder free them."

MAXIMS from the journal of a Canadian farmer, are just as applicable to us on this side of the "line," as they are to Her Majesty's subjects on the other side. The writer or compiler of these maxims is a kind of a Dr. FRANKLIN sort of a man, and it is a great pity we have not more of them.

THE POTATO CONVENTION is pretty well got up; greatly delighting the "little folks," as well as lighting up a smile on the face of the older ones.

Warner, N. H., March, 1860.

LEVI BARTLETT.

DEEP PLOWING INJURIOUS ON PRAIRIE SOILS.

EDS. GENESEE FARMER:—Farming has been my only business for the last twenty years, and the longer I follow the plow the more I am convinced of my ignorance of the reasons of such slight mistakes which we often make and which prove so disastrous to our prosperity. For instance, a few days too early or too late in sowing wheat will prove to be almost as many hundred dollars damage to the crop. Also, in rotation of crops, how little do we know of this important part of our work.

In regard to the cultivation of corn, I wish to draw your attention to a few facts which have come to my knowledge within a few years. (And this brings up the question which was asked in the November number, 1859: "How Deep should we Plow?" I hope that all of your numerous readers who have tried different ways, and can throw any light upon the subject, and especially those of the West, will contribute something on it. I see the result, to my disappointment, but the why or wherefore I can not tell.)

The facts are these: Some seven years ago, a six acre field was plowed very deep for this country, say twelve inches,—about twice as deep as the common practice. It was sown with wheat the first year, and the second and third years planted in corn, continuing to plow nearly as deep in the spring of each year. The ground was so light and loose that the corn all fell down before the ears grew of any size; therefore the crop was almost a failure both seasons, while other fields near by, cultivated no better, produced double the crop. Another instance—a ten acre field cultivated in wheat four seasons in succession, and plowed twice every year, and no weeds allowed to get ripe; planted in corn the next three seasons, plowed very deep each year,—about twelve inches—and kept clean from weeds. The first two seasons produced very fine crops, equal to any in the vicinity; third year, the corn grew as usual very fine, stood up very straight till the middle of July, and then fell down before the ears matured, so that many of them were not more than three or four inches long; and did not produce half as much as that on the other side of the fence, which has never been plowed more than six inches deep, allowed to grow up to weeds some years, and, as we say sometimes, "half cultivated."

I never saw land in better condition to grow garden seeds than was this ten acre field last spring, and it remained so during the summer. As far as the eye could detect, nothing could hinder it from producing a fine crop. The stalks fell down in every direction. It was not the wind that caused them to fall; it was no chintz bug, which sometimes does damage to crops, and no other insect that could be seen. The roots did not take hold of the ground sufficiently to hold the stalks up. In the fall, a man could pull up a stalk with his thumb and finger, and sometimes a whole hill at a time.

My attention has been directed to this subject more this season than ever before, and I find that farmers who have never used three horses abreast in plowing for corn, and have not plowed more than six inches deep, have invariably had good standing corn, while those who have plowed deep for years have suffered from falling crops. And

now, as this subject of deep plowing is in everybody's mouth and in all agricultural papers, and although I am a firm believer in it myself, if managed in a more economical and scientific (I don't like that word exactly, and will say more sensible) manner, I want for the sake of argument to take the negative side of the subject, and will some time say more about it.

SAML. B. TURNER.

Quincy, Ill., February, 1860.

FEEDING BEES IN SPRING.

EDS. GENESEE FARMER:—Feeding bees in spring is sometimes absolutely necessary, but to make arrangements, expecting to do so, when selecting stocks in the fall, is of doubtful economy. Such hives as are too poorly supplied with honey, should be either fed in the fall or taken up. But as some stocks are either robbed, or from some other cause consume more honey than we expect, a little trouble in feeding now may save a loss. In doing so, considerable care is requisite, and but few know how to manage it properly. Honey fed to bees, is almost certain to excite quarrels among them. Strong colonies will often carry off the honey given to the weak ones as fast as it is supplied.

It is possible that feeding a stock of bees in spring may cause them to starve; whereas, if let alone, they might escape. Although this looks paradoxical, I think it may be made to appear reasonable. Whenever the supply of old honey is short, probably not more than one egg in twenty which the queen deposits, will be matured—their means not allowing the young brood *all* to be fed. This appears from the fact that several eggs, under some circumstances, may be found in one cell, where it is impossible for more than *one* to mature. Now suppose you give such a stock several pounds of honey, at a time when the flowers yield none, or but very little, and they are encouraged to feed a large brood, and then your supply fails before they are half-grown, what are the bees to do? Destroy the brood, and lose all they have fed to them, or draw on their last year's store for a quantity to help them in this emergency, and trust to chance for themselves? The latter alternative will probably be adopted, and then, without a timely intervention of favorable weather to bring out the secretions of honey in the flowers, the bees must starve. The same effect is sometimes produced by the changes of the weather: a week or two of fine weather may bring out the flowers in abundance—a sudden change, perhaps a frost, may destroy all for a few days. This makes considerable vigilance necessary, as these turns of cold weather, when they occur, make it unsafe to neglect them till white clover appears, which, in some seasons, is as late as the middle of June. But, if the spring is favorable, there is but little danger, unless they are robbed.

If the necessary care about worms is taken, it will tell which hives are light—merely raising one edge to destroy the moth-worms, tells you something about the honey on hand. To be very exact, the hive should be weighed when ready for the bees, and the weight marked on it. By weighing at any time afterwards, tells at once, within a trifle, what honey there is on hand. Some allowance must be made for the age of the combs, the quantity of bread, etc. It is hardly worth while

to begin to feed without being prepared to continue the supply, as needed, until the flowers yield abundance.

If it is wished to wait as long as possible, and not lose the bees, when it is known they are nearly destitute, a test will be necessary to decide how long it will do to delay feeding. But, in this case, strict attention will be absolutely necessary; they will need examination *every morning*. If a light tap on the hive is answered by a brisk, lively buzzing, they are not suffering; but if no answer is returned to your inquiry, it indicates a want of strength. Extreme destitution destroys all disposition to repel an attack. If the weather is cool, very likely they will appear lifeless; yet they can be revived, and now *must be fed*. When this is their condition, invert the hive. If any bees are scattered, gather them into the hive; get some honey, add water, to prevent burning, and scald it; or, if no honey, take sugar, add water, and boil it; when cool enough, pour a quantity among the combs, directly on the bees; cover the bottom of the hive with a cloth to secure the bees, and bring to the fire to warm up. In two or three hours they will be revived, and may be returned to the stand, providing the feed given is all taken up; on no account let any run out around the bottom.

The necessity of a daily visit to the hives is apparent, from the fact that, if left over for only one day, in the situation just described, it will be too late to revive most of them. At night, if you have a box cover that will exclude all bees outside, you may open the holes in the top of the hive, fill a small baking-dish with honey or syrup, and set it on the top; put in some shavings to keep the bees from drowning, or a float be used, if you choose, made of some light, very thin wood, and full of small holes or narrow channels made with a saw. At the commencement of feeding, a few drops should be scattered on the top of the hive and trailed to the side of the dish, to teach them the way; after feeding a few times, they will know the road. When the weather is warm enough for them to take it during the night, it is best to feed at evening—from four to six ounces daily is sufficient. If the family is very small, what honey is left in the morning may attract other bees; it is then best to take it out and return at night. A good look-out should be kept that they are not plundered by other bees—which is quite common when feeding—and again left in a starving condition until flowers produce sufficient honey.

When you have the means to keep up a supply of food, and the time requisite to make feeding secure, perhaps it would not be advisable to wait till the last extremity before feeding, as a small family will sometimes entirely desert the hive when destitute. In these cases, they issue precisely as a swarm: after flying a long time, they usually either return or unite with some other stock. If they return, or cluster (which they sometimes do), they need attention *immediately*, by feeding as directed.

Whenever a desertion takes place, something is wrong—in spring it may be destitution or mouldy combs; at other times, the presence of worms, diseased brood, etc. By whatever cause it is produced, it is well to ascertain it and apply the remedy.

M. QUINBY.

St. Johnsville, N. Y., 1869.

FEEDING BEANS TO MILCH COWS.

EDS. GENESEE FARMER:—Hay, owing to the June frost, was a total failure in this section last year, and the cry was that the cattle must starve. Now, as the farmers in this section had never been in the habit of using anything for feed but hay, straw and corn-stalks, with the corn all carefully removed,—never feeding an ear to anything but the horse and hog—they felt certain of poverty if not death to their stock. What I propose to tell, is what was my condition, and what has been my success.

I cut twenty acres of meadow, and got twelve tons of poor hay. This, with the exception of three acres of corn, was all I had to keep twenty cows and two horses upon. It was out of the question to buy hay or sell cattle. I was fortunate in the course of the fall to find a little straw that I could get, and bought five tons, thinking cows would eat it just before starving. Next I bought corn enough, in addition to what I raised, to make 250 bushels. I always feed everything in the stalls, and when feeding time came, I commenced with the stalks; feeding, at the same time, corn in the ear, twice each day to the cows that were not giving milk. To those that were, I fed stalks, with corn and bean meal. I will now leave my subject to inform you how I came to use beans for feed.

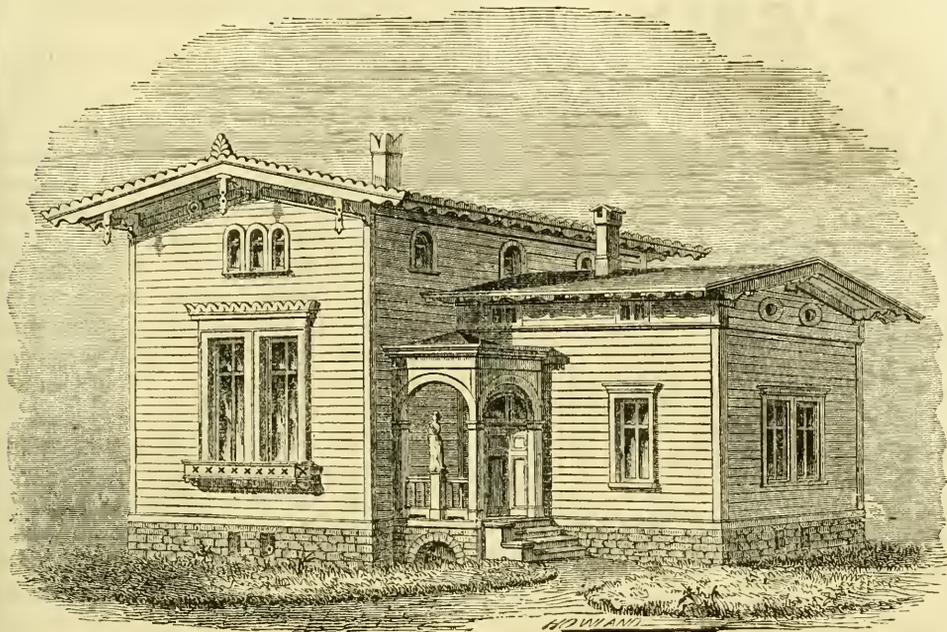
The frost cut my beans when there was yet a large number of green pods. When threshed, these green beans turned so as to spoil them for market. My neighbors told me they were lost, as there was nothing that would eat beans. My first experiment was to boil them, and mix with meal. This they seemed to like. Next I mixed them with corn and got them ground. They were said to be the first beans ground at this mill. I fed two quarts to each milch cow twice per day, with such skimmed milk as is not needed for the pigs. My cows with this feed, give large quantities of milk.

When the stalks were gone, I commenced on the straw, supposing they would think it an imposition; but they looked good-natured and ate it with a relish. After the straw came the hay, continuing with regularity the corn and meal. My cows look well, are strong and healthy, and were wintered cheaper than I ever experienced before. v. r. c.

Obertin, Ohio.

WALKING HORSES.—A correspondent of the *Country Gentleman* suggests the offering of premiums at annual county fairs for fast walking as well as fast trotting horses. He says he knew a man who kept from two to four teams at work on the road, and never allowed them to trot at all; yet he made the distance in quicker time than his neighbors who made their horses trot at every convenient place. He said that when a horse walked after trotting, he walked much slower than his common gait, if kept continually on the walk, and thus lost more than he gained by the trotting.

TASTE OF TURNIPS IN MILK.—I noticed an article in the *Farmer* stating that if turnips were fed to cows after milking, morning and night, the milk will not taste. We have tried it all this winter, but still the milk and butter tasted of the turnips. We left off feeding turnips a little more than a week, and fed with carrots, and the milk and butter were sweet and nice.—R. J. S., Hillsburg, C. W.



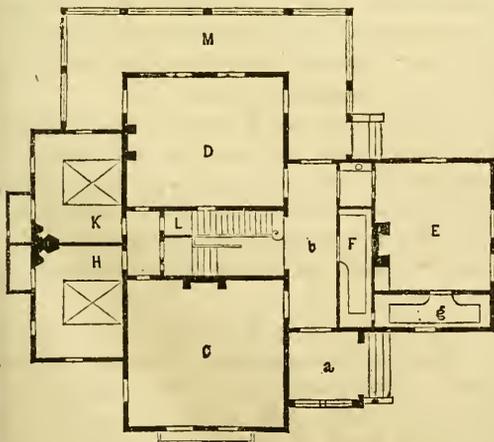
THE NEW AMERICAN STYLE FOR COTTAGES AND VILLAS.

THE NEW AMERICAN STYLE FOR COTTAGES AND VILLAS.

We submit this plain and small example of the new style, as representing what amount of comfort and beauty can be combined, where the cost was \$2,500 on Long Island, and likely \$100 or \$200 less where materials are cheaper.

est designs, for the homes of the humble can be as beautiful as those of the wealthy, in proportion to their cost.

Let us look around us and see how very few examples there are designed with true architectural principle, and conveying to the beholder a feeling of admiration. Do not let us be behind in architecture. Let us feel able to compete with our neighbors on the other side of the ocean. Let say that our humble homes are masterpieces of art in architecture, as well as those of greater pretensions. Let us have art and the beautiful combined with our required comforts, and then we shall be able to take our station on the highest step, above all others, as a nation devoted to liberty, united with art. These ideas may look out of place by the side of this small example of our attempts; but how often have the greatest effects arisen from the smallest causes, and we hope we do not advance too far with our remarks when, to the readers of this journal and others, we can say we have examples costing one hundred times as much as this.



DESCRIPTION OF THE PLAN.—Front faces the north, dining-room south, kitchen east. *a*, entrance-porch; *b*, hall; *C*, parlor, 16 by 14; *D*, dining-room, 16 by 13; *E*, kitchen, 12 by 13; *F*, store-room; *g*, pantry; *H* and *K*, bed-rooms, 10 by 11; closets and fire-place to each. The wing is only one story high. On the second floor of the main building are two bed-rooms and bath-room. The space over the kitchen is used for storage, etc. In conclusion, we will state that we shall shortly present a design in brick construction, with the general characteristics of the style—one peculiarly adapted to the wants of the people.

The general characteristics of the style here represented are types of the life of the American people, and peculiar to their required comforts. Why should we not have a style of our own, with such a vast amount of materials as we possess? If others have not attempted to produce a national style, we shall endeavor to spare no pains toward its accomplishment. We commence with the small-



TOPIARY WORK.

UNDER this head, we find, in the March number of the *Horticulturist*, an elaborately illustrated article by J. JAY SMITH, who has recently retired from the editorial chair of the *Horticulturist*.

Mr. SMITH seems to have discovered an occupation for those "who have been great," and have retired to private life, the prosecution of which will cause this usually dull part of earthly existence to "slip somewhat insensibly away." "The training of vines, shrubs, and even trees," he says, "is one of those artifices which will continue to give pleasure by carrying out a preconceived idea, and realizing it by degrees." Now, this sounds very well, and without further amplification, we should infer the author of such a sentiment to be an enthusiastic horticulturist, skilled in the mysteries of pruning, training, shortening, tying out, and all the other artful practices of modern gardening. But let us read further:

"It has been the fashion to rail at artificial scenes: Pope set the fashion, and the wifings followed their leader; but it is by no means ascertained that the human mind, the average intellect, is not capable of deriving pleasure from the surprises which art may introduce. I have myself derived more satisfaction in youth from a huge box-bush hollowed out by time and art, where concealment and quiet could be enjoyed behind a leafy screen, than from mountain scenery, or any scenery but a waterfall. You may assemble all the new evergreens as well as the old in a given space; they may all be growing beautifully according to nature's laws, and delighting your educated taste. Show these to a regular inbred citizen, or to a child, and as respects their education to the subject, their minds differ but little, each being a blank sheet in which no correct lines have been drawn, and they will make little impression. The expression may be 'Ah!' or 'Yes.' Suddenly introduce the same parties to a nook in which are some healthy bushes growing in the shape of an animal, a cross, a crown, or any correctly outlined object, and the exclamation is at once altered: 'Oh dear! how very curious! See that dog! how natural!' Your visitor forgets the sublime Cedar of Lebanon, and carries in his memory only the odd, combined, however, with the element which is never to be lost sight of, that human ingenuity, and time, and

expense of some kind, have been lavished for your enjoyment."

Is it possible to find in the whole circle of horticultural literature, another example of so many erroneous ideas expressed in so few lines!

Has Mr. SMITH no conception of artificial scenery, from which the "human mind, the average intellect, is capable of deriving pleasure," except from such stiff, unnatural and grotesque objects as living trees and bushes cut into the forms of "an animal, a cross, a crown," etc.?

"See that dog! how natural!" How unnatural—how absurd—how positively ludicrous is every such figure! would be the exclamation of every intelligent man, woman or child.

We venture the opinion that a novice would express quite as much surprise (if that is an emotion which for itself it is desirable to foster,) on his first introduction into a well-formed and well-kept garden, where he should see closely shaven, smooth lawns, neat, hard gravel walks, beautiful, finely-formed trees and shrubs, flower-beds planted with an artist's discrimination in the arrangement, combination and contrast of colors, as he would at the sight of a box fighting-cock or an evergreen monkey. If the "average intellect" of the readers of the *Horticulturist* is to be entertained by this kind of garden ornaments, we congratulate it in having so enthusiastic a champion.

We have no doubt the youthful SMITH "derived satisfaction" from "concealment and quiet behind a leafy screen," but are also inclined to believe he has spent a greater proportion of his time in the shade than he here intimates.

The engravings which illuminate this article are of various forms, but what they are intended to represent we are unable in all cases to determine, as the writer does not inform us fully on this point; of course it is supposed that he possesses this information himself, and perhaps will make it known on application.

Fig. 2 is a cross on the top of a pillar, with a narrow base sloping outward to a broad, rounded top. Figures 3 and 4 are in the form of quarter sections of a hollow globe, for shaded seats, and are the only useful or graceful objects represented. Figure 7 is a clumsy-looking urn, and figure 9 is a bird, with a top-knot and a long, sweeping tail, standing on one leg on the top of a round-headed club. Figure 10 represents an arbor at Elvaston Castle, England, cut out of a Yew tree, and the whole surmounted by two Peacocks, one on the top of the other.

These are the models which are furnished to the American public through a medium which professes to be the exponent of the horticultural taste of the country.

Mr. S. says: "I would confine the art to moderate dimensions;" also, "I would not expose my ambition by carving the ludicrous or monstrous." We suppose by this is meant that he would confine himself to dogs, birds and other small animals and objects. "A fountain represented in a Norway Fir may be eminently beautiful, when a centaur would be simply ridiculous." The nice discrimination which here appears to be made, we are fearful will scarcely be apprehended by the "average intellect."

As an example of special pleading we have the following: "There has been too much said against the artificial in landscape gardening; what is it, after all, but artificially imitating nature, the great teacher as well as mother?" Ghost of Downing! is the writer sane?

In our ignorance, we had supposed that the true principles of ornamental gardening had been defined, and that horticulture henceforth was to progress instead of being subject to fashion or caprice. REPTON and DOWNING, with consummate skill, deduced and exemplified the elements of this beautiful, useful and ennobling art. Hundreds of grounds in this country have been formed according to these principles, and we expect, as wealth and taste becomes diffused, to see produced, throughout our lovely land of varied scenery, the brightest spots of earth the sun has ever kissed.

BONES FOR GRAPE VINES.

EDS. GENESEE FARMER:—It is quite customary to bury whole bones in grape borders, and the effect, I believe, is generally beneficial. I have seen the fibrous roots cling to the bones, and penetrate into the pores as though there was something in the bones they were very fond of. Now, I suppose that it is the phosphate of lime of the bones that constitutes their chief value. Would it not seem probable, therefore, that superphosphate of lime (which contains *soluble* phosphate of lime) would be a very powerful manure for grape vines? I should be glad of your opinion on this subject.

Philadelphia, Pa.

R. H.

The effect which our esteemed correspondent describes, we have witnessed ourselves. The chief value of *burnt* bones is undoubtedly owing to the phosphate of lime which they contain; but in fresh bones the gelatine is of at least equal value to the phosphates. Gelatine is very similar in composition to the flesh of animals; and it is well known that dead animals buried under grape vines produce,

oftentimes, a very beneficial effect. One of the most productive vineyards in this State had a large number of the carcasses of animals (killed in the vicinity by an accident on the railroad) buried beneath the vines before they were planted. Now, this animal matter, decaying in the soil, would furnish *ammonia* to the plants rather than phosphate of lime. And it is more than probable that the effect of whole bones placed beneath grape vines is to be ascribed to the ammonia formed by the decay of the gelatine of the bones rather than to their phosphates.

The bones of a bear and of a stag, which had been long buried in the soil, were analyzed by MARCHAUD, and they were found to have lost very little phosphate of lime, while the animal matter, or gelatine, had greatly diminished, especially in one of the bones, which had been buried more shallow than the rest.

It follows from this, that the phosphate of these whole bones, which remain undecomposed and insoluble in the soil, can have very little effect on the plants. The fact, therefore, that whole bones buried beneath grape vines increase their growth and productiveness, is no proof that the soluble phosphate of lime in superphosphate would prove beneficial. We do not say that it will not, in fact we think it is quite likely that superphosphate may be an excellent manure for grapes; but the facts mentioned by our correspondent do not prove it.

"But doesn't the fact," we hear our correspondent ask, "that the effect of bones lasts for a great many years, prove that it is due to the phosphate of lime, and not to the gelatine? The latter decomposes more readily than the former, and would soon be consumed, while the phosphate would last for a long period. If the bones are beneficial after all the gelatine is decomposed and absorbed by the plants, it must be owing to the phosphate of lime still left in the bones." This would be true, if the gelatine was all consumed, but in the case of whole bones it would take many years to produce such a result. While the bones analyzed by MARCHAUD, which had laid in the ground for an unknown period, had lost a large proportion of their gelatine, they still contained a considerable quantity—that of the bear, which was buried deep, 16 per cent.; that buried shallow, 4 per cent., and that of the stag 7 per cent. It is stated that the soil of a district in Sweden, "which, from time immemorial, had grown excellent wheat, without manure," was analyzed by BERZELIUS, and found to contain minute fragments of bone, capable,

upon boiling with water, of yielding a weak solution of gelatine. It was concluded, therefore, that the spot had been an ancient battle-field, and that its prolonged fertility was due to the bones of the old soldiers and their war-horses buried in it, and still, to some extent, undecomposed.



HIBISCUS ROSA SINENSIS.

This plant is very commonly cultivated in the gardens of China and the East Indies, and is there a fine evergreen shrub, attaining a height of ten feet. With us, however, it can only be grown in the green-house, or, more properly, a hot-house, and seldom becomes more than two or three feet in height.

The leaves are from three to four inches in length and two-thirds as broad, supported by a long foot stalk; they have a dark green, shining, wax-like surface, which renders the plant very attractive, even when not in bloom.

The flowers are about two inches in diameter, of the shape of a single hollyhock, and of a dark, rich, velvety crimson color. The plant in full flower is perfectly gorgeous in appearance, and will always receive especial attention wherever it becomes known.

It is a matter of importance that the ground on which fruit trees are to be planted should be subsoiled and well manured before planting. Afterward it will not need to be so deeply cultivated.

WORK IN THE KITCHEN GARDEN.

APRIL is a busy time with those who have gardens. Much has to be done as soon as the frost is out, in preparing the ground for planting. It is however not desirable to sow seeds for a main crop, but only such as can be advantageously grown as an early summer crop.

PEAS.—A few rows of early peas may be sown, such as the *Dwarf Kent* and *Prince Albert*. Plant in rows three feet apart and soak the seeds for a few hours, and roll them in plaster before sowing.

ONION seed may be sown in rows one foot apart. One ounce of seed will sow a bed 24 feet long by 4 wide.

PARSNIPS are a desirable crop to get into the ground early. The ground for them should be dry, deep and well pulverized. Sow in rows 18 inches apart. In May thin out to 8 inches apart in the rows. With good after cultivation no crop will yield a better return for the labor bestowed. The best variety is the *Hollow crowned*.

BEETS.—These are worthy a place in every garden. The *Blood Beet*, either long or turnip rooted, is the only kind we should grow. Some like the white sugar beet. Soak the seed a day or two before planting, and sow in rows 18 inches apart.

CARROTS.—Some sow the *Early Short Horn* this month. It is the best variety for garden culture, and succeeds well on any moderately rich soil.

PARSLEY.—This forms a neat edging for the ends of the different beds next the larger walks of the garden. It is useful in flavoring stews, soups and gravies. Some like it for salads.

TURNIPS.—A bed of the *Early white globe* or *Early Dutch* will be found useful for summer use. Sow broadcast and afterwards thin out as desired.

CABBAGE.—Sow some seed of early kinds, as the *Early York*, *Sugarloaf* and *Winningstadt*, as well as some of the early varieties of Cauliflowers. Sow broadcast in a richly manured spot in the open border, where the sun can have free access to the plants.

RADISHES.—The best kinds are the *Long Salmon* and the *Red and white Turnip*. Sow broadcast in a warm border and give enough seed. Rake it over lightly, and in three or four days the plants will appear. Pull the largest as they grow to a size fit for the table. Sow a fresh bed every two or three weeks to keep up a succession.

LETTUCE.—The earliest sown are the best—in

fact those self sown the previous summer are often to be found plentifully in most gardens. To attain perfection they should afterwards be transplanted into an open border, and when of tolerable size, tied up, so as to become white and solid at the heart.

Cresses, mustard and various other salads may be sown as soon as the ground is ready for them.

TOMATOES.—No garden should be without these. The earliest plants are the best, and as it is an object to get the fruit ripened as early as possible, it is well to sow some seeds early and protect the young plants from frost till they can be transplanted. The best kinds are the *Large smooth red* and the *Yellow Plum*. The *Feejee* and *Perfected* are two new kinds that have recently appeared, which we have not tried, but have heard them highly recommended.

POTATOES.—A few early potatoes, such as the *Ash-leaved Kidney*, or *Early June*, may be planted, and if frost is anticipated after they come up, protect the plants with boards or straw. Plant whole in hills, one potato in each.

Don't forget to prune up all the small fruits, and tie up such as seem to need it. Clean out and fork over the strawberry and asparagus beds, and get the whole garden into neat and trim order.

INSECT EGGS ON THE LEAVES OF APPLE TREES.

EDS. GENESEE FARMER:—In March last, I was going through my orchard—a young one—to prune out superfluous branches, when I noticed here and there dead leaves adhering to the trees. On taking hold of one to remove it, I found it strongly adhering by a silky substance, in which was a number of eggs about the size of a turnip seed. Thinking it better to get rid of them, I examined all the trees and took off over forty-five of these nests. In some of them, larger eggs had been deposited in the centre of the smaller ones, probably by a parasite. Were these nests the deposits of moths? Can you or any of your correspondents tell? and is it advisable annually to examine fruit trees for the purpose of destroying these nests? J. M.

Canada West, Jan. 24, 1860.

HIGH BUSH CRANBERRY.—This shrub deserves all the encomiums in the *Genesee Farmer* of March, 1860, p. 96, except one. Its *fruit*, when fully ripe and soft, contains an acid pulp, in which it resembles the common low cranberry, though inferior. The fruit is sometimes sold as a substitute for the real cranberry. No housewife, however, will try to use it but once, in the place of that delicious sauce. The fruit is almost wholly a hard long seed, scarcely covered with pulp, and, when cooked with much sugar, and resembling the true cranberry, it sadly mocks the taste. The only use of it is as an ornamental shrub. It belongs to a very different order of plants from the cranberry, the real *oxycoccus*.—C. D.

LIME FOR FRUIT TREES.

EDS. GENESEE FARMER:—In the February number of the *Farmer*, I noticed an inquiry made by LEVI LEBO, of Pa., with regard to the use of lime in orchards. Although I am a young farmer, I think I have had some experience in the culture of fruit trees. But whether Mr. LEBO means to ask for information with regard to using lime in the form of whitewash, to be applied to the trunks with a brush, or with regard to using it as a top-dressing around the roots of the tree, I am at a loss to know.

The practice of whitewashing trees with lime and water, which is practiced more or less almost everywhere, I consider to be very injurious to the growth of the tree. It is true, it will sometimes render the bark comparatively smooth and clean, and destroy, in a measure, the bark-louse. But, although there may be a slight benefit derived from whitewashing trees in this respect, I believe there is a much greater amount of damage done by it. The lime on the bark of the tree stops all the pores and prevents the free circulation of the sap. The tree is stunted from the injury done to the bark; and, if persevered in, the lime on the bark will eat it, and make it become thinner and thinner, until eventually the tree will die. A wash made of weak lye, or of a solution of two pounds of potash to eight quarts of water, and rubbed on the stems of the tree, will prove more beneficial and far less injurious.

And now with regard to using lime as a top-dressing. When it is used in moderate quantities, I consider it very beneficial. This, I think, is very evident from the fact that limestone soils are almost invariably productive of all kinds of fruit. I think I never saw an orchard that was planted on a limestone soil but was very productive, unless there was something very unfavorable to the growth of the trees. Lime will, in the main, promote in an astonishing degree the flowering and fruiting of almost all plants, because calcareous salts promote evaporation and the concentration of the sap. Air-slaked lime is an excellent manure for fruit trees, as a top-dressing; or if spaded in around the tree, it will render it much more fruitful, where the soil is not too calcareous by nature. But, in all cases in the use of lime, care should be taken not to use it in too great quantities.

Another benefit derived from the use of lime around fruit trees, is the fact of its seriously affecting more or less all kinds of worms and insects that infest the apple tree. Most of the vermin that annoy fruit trees in the summer, remain in the ground during the winter. A quantity of lime spaded in around the roots of the tree will have a good effect toward destroying the canker-worm, if applied in season, and a small mound of lime around the collar of the tree will prevent the ravages of the borer, which almost always enters the tree in the tender bark near the ground.

The result of my observation and experience, therefore, is that lime is good and beneficial on all soils except calcareous ones, that it will greatly assist in destroying all vermin that harbor in the ground under the tree, and that it is equally injurious when applied to the bark, as it stops the pores and impairs the health of the whole tree.

Argyle, N. Y., March 2, 1860.

J. F. RANGLES.



THE BROWN TURKEY FIG TREE.

THE FIG.

THE history of the Fig is coeval with that of the human race; frequent mention is made of it in the Scripture and other writings that have been handed down to us from antiquity. It has always been highly esteemed as an article of food, and in those countries well suited to its culture, it forms an important item of produce and exportation. As an article of diet, it is used both green and in the dried form. The fresh fig, just plucked from the tree, is sweet and cloying to the taste and not particularly agreeable, until a relish is acquired for it, when it becomes a favorite and wholesome fruit.

In warm climates, the fig tree attains a height of about twenty feet, with numerous branches, and bears two successive and distinct crops of fruit during the season; the first ripening in June and July, and the last crop during the autumnal months.

The flower of the fig is remarkably curious, being numerous produced *within* a fleshy, hollow receptacle, and consists merely of a single style and three stamens.

When the office of the flowers has been performed the receptacle which contains them increases in size and becomes, in time, the perfect fruit.

In the Middle and Western States, the culture of

the fig is seldom attempted, except in greenhouses and graperies; but there is no difficulty in producing the fruit in the open air, by merely taking up the plants with a ball of earth attached in the autumn, before the frost nips them, and putting them away



FRUIT AND LEAVES OF THE BROWN TURKEY FIG.

in a cellar that will not freeze, and then re-planting each spring. They will bear this apparently rough treatment remarkably well; the only effect it has being to diminish the growth of the wood and increase the fruitfulness—two results, in this case, quite desirable.

In growing the fig in this manner, little pruning is necessary, as the shoots are very short jointed and become well ripened.

The best variety of fig for this mode of culture is the *Brown Turkey*, as it is one of the most hardy, being able even to bear the winter in the southern part of the Middle States, if protection is given it. DOWNING describes the fruit as "large, oblong, or pyriform. Skin, dark brown, covered with a thick blue bloom. Flesh, red and of very delicious flavor." *Black Ischia*, *Brown Ischia*, *Small Brown Ischia*, *White Ischia*, *Nerii*, and *Pergussaba* can also be recommended as excellent and tolerably hardy sorts.

EXPERIMENTAL GARDENING—NEW AND VALUABLE PLANTS TO CULTIVATE.

EDS. GENESEE FARMER:—We devote a portion of our time to obtaining and propagating various new and rare plants; and by testing the quality of each variety, and when found to be of value, we deem it our duty to impart our discoveries to others, that they too may share with us the luxuries and comforts of life. "Progress and Improvement" is our object, and to disseminate, by way of interchange or otherwise, rare seeds of known value. As a very convenient and cheap mode of receiving and distributing seeds from distant parts of the Union is offered by our cheap postage and frequent mails, it becomes the duty of every agriculturist to cast in his mite to forward the enterprise. A little parcel of corn, or other grain, planted at any point, may soon multiply so as to become widely disseminated. Especially is this the case with seeds of garden vegetables. By the above mode we have received and cultivated many valuable plants; and among the many varieties we have grown the past season, and deem worthy of public mention, are the following:

THE TOMATO.—DR. BENNETT, a professor of some celebrity, considers the tomato an invaluable article of diet, and a most sovereign remedy for dyspepsia and indigestion; and that it should be constantly used for daily food either cooked, raw, or in the form of catsup. It is the most healthy article now in use. We opine the doctor is about right, and that the tomato should be grown in every garden. We find the *Feejee*, a variety recently introduced from one of the Feejee Islands, one of the best. It is early, fruit more solid, less seeds, smooth skin, pale red color, and large—specimens weighing from ten to twelve ounces; of extra flavor. *Charlton's Improved* is, in our opinion, the next best; color, deep red; of good size and quality.

Of SWEET CORN, the *Constantinople* and *Brigg's Excelsior* are two of the best varieties we have grown. They are early, large, 10 and 12-rowed, well filled, sweet and delicious.

Of PEAS, we will mention two varieties, out of the many we cultivate, as the best. The *West India Sugar Pea* (edible pods), and the *Poor Man's Pea*. We will tell why this is called the *Poor Man's Pea*. It is this: they are so rich and nutritious that they require no butter or other ingredients to season them. In height, about two feet; pods

hang in clusters, and can pick a mess in a few minutes.

LETTUCE.—The *Grand Admiral*: heads large very tender.

CALIFORNIA CURLED PARSLEY.—A biennial of easy culture. Of our common parsley, from the long time the seed lies in the ground without germinating, it has been said that "it goes nine times to the devil and back before it comes up." These journeys require ordinarily a month or more. We find no such delays of the germinating of the *Cal. Mammoth Curled Parsley*. This is extra for garnishing; giving a delicious flavor to fresh meats, soups, etc., and should be grown in every garden.

MAMMOTH MUSTARD.—This is truly a gigantic plant. It has a large, curled leaf; extra for greens or salad; a profuse seeder—much more so than the common, and of better quality.

STRAWBERRY WATERMELON.—This is our choice variety.

CUCUMBERS.—The *Man of Kent* is quite a novelty. We have grown specimens 18 inches in length. The *Early Green Russian* and the *Early White Russian* are two very early and desirable varieties. *Brigg's Prolific Pickle* is the smallest of all cucumbers, and good for pickling.

FENNYRECK.—An annual medicinal plant, the seed of which is valuable for the restoration of the hair. Take half a tablespoonful of the seed, put it in half a gallon of cold water and let it stand 40 hours; then wash the head twice a week, and it gives the desired effect. It is also one of the best ingredients for a condition powder for horses and cattle. Fennyreck is a hardy plant, of easy culture, and should be grown more extensively. Plant in drills ten inches apart and eight inches asunder.

WEST INDIA GHIKIN.—About the size of the butternut; stem five to six inches in length. Pick the fruit when young and tender, and reserve the stem, as it is handy to take them from the dish. As a pickle, we prefer them to the cucumber.

WINTER SQUASHES.—The *Hubbard* is one of our choicest and best varieties.

LONG PURPLE EGG PLANT.—This variety is preferred for family use. When two or three inches in diameter, cut in thin slices and fried in butter, or used in stews or soups, they are quite a rarity. The *White Egg Plant* is very ornamental.

CHUFA (Earth Almond).—This produces tubers about the size of an ordinary bean, resembling in taste a chestnut, but more delicious.

WELD, OR DYER'S WEED (*Reseda luteola*).—This produces a splendid fast-yellow color, for all kinds of silk, cotton, linen, mohair and woolen goods. The same yellow color serves for painting also, as the "Dutch pink" is made from it. *Weld* is a very hardy biennial plant. Sow in July or August, and harvest in July the next year, when in bloom and beginning to turn a light yellow color, by merely pulling up the whole plant, and put up in small shocks, so as to thoroughly dry. It can be kept a number of years without altering its coloring qualities.

We have grown many other varieties of plants, but we already weary the patience of the reader, and occupy too much space in the *Farmer*. L. N.

Windsor, Ashtabula Co., Ohio.

(To be continued.)

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

ELECTION CAKE.—Four lbs. of flour, two lbs. of butter and two of sugar. Stir the butter and sugar together thoroughly; then mix half of it with the flour, together with a tumblerful of good home-made yeast, and one quart of warm milk. Beat it and pat it with both hands, until the ingredients are thoroughly mixed. Then let it stand in a warm place until it is light, say five or six hours. Then add the remainder of the butter and sugar, two lbs. of raisins, and a small quantity of pulverized mace. This may stand over night, and put in pans for baking early in the morning. It should rise in the pans, and then bake an hour in a slow oven. This cake requires no eggs, and is used by economical housekeepers in winter, when eggs are dear. The loaves, nicely frosted, will be preserved moist for a long time.

TRANSPARENT AND WATER-PROOF CLOTH.—To every quart of raw linseed oil, add half a pint of copal varnish and two ounces of sugar of lead. Mix well together and apply with a brush. This mixture applied to thin sheeting, answers a good purpose in place of glass, for hot-beds, letting in plenty of light, excluding cold and wet equally as well, and protecting the young plants from the hot breath of the old sliner, which proves oftentimes fatal to them.

DELICIOUS VEAL CUTLET.—First take your cutlet and beat it with the flat side of the cleaver or rolling pin. Beat it for about five minutes, then, having thrown a quantity of butter, eggs and flour into a frying pan, when the mixture is hissing hot, put your cutlet in and there let it stew. The mixture will penetrate to the core, and is imbibed in every part.

FRENCH ROLLS.—Rub two ounces of butter into one lb. of flour. Mix in the whites of three eggs beaten into a froth, and a spoonful of yeast. Milk to make a stiff dough, and salt. They can be made over night, and divided into rolls for breakfast. Bake ten minutes.

FOR BURNS.—Two ounces of sage, two of mutton tallow, two of rosin, and two of beeswax. Boil the sage and strain it. Then put all together over a moderate fire, and stir till all is dissolved. Bring to a boil, and pour in old rum till it stops boiling. It is first rate.

COOKIES.—Two eggs, one cup of sugar, one of butter, and one-half teaspoonful of saleratus, dissolved in one tablespoonful of milk. Beat the eggs and sugar very thoroughly before adding the butter, cold. Add flour sufficient to roll.

PUMPKIN PIE.—One cup of grated pumpkin, one egg, enough milk for one pie, cinnamon, a little salt, and two tablespoonsful of sugar.

WEST POINT CAKE.—One lb. of sugar, one lb. of flour, one-half lb. of butter, five eggs, one cup of cream and one teaspoonful of soda.

LUCY'S DELICATE CAKE.—The whites of four eggs, one cup of sugar, one-half cup of butter, two spoonful of milk, one-half teaspoonful of cream tartar, one-fourth of teaspoonful of soda. Flavor with lemon.

JELLY CAKE.—Four cups of flour, three of sugar, one of butter, one of sour cream, five eggs, one teaspoonful of saleratus. Bake thin and spread a layer of jelly between. This is excellent.

JACKSON'S JUMBLES.—Three cups of sugar, one and one-half cup of butter, one of sweet milk, five of flour, two eggs, one small teaspoonful of saleratus, and a little fruit sprinkled over the top.

SODA SPONGE CAKE.—The whites of six eggs, one cup of white sugar, one of flour, one teaspoonful of cream tartar, one of soda, one of essence of lemon, and a little salt.

A VERY NICE GINGERBREAD.—Two cups of molasses, one of sugar, one of sour milk, one of butter, five of flour, one teaspoonful of saleratus, and one tablespoonful of ginger.

LEMON CAKE.—One lb. of sugar, three-quarters of a lb. of butter, seven eggs, one lb. of flour, the juice of one lemon and the rinds of two. Bake in a moderate oven.

CYNTHIA'S GINGER COOKIES.—One pint of molasses, one cup of sugar, one of butter, one-half cup of water, one tablespoonful of ginger, and one of saleratus.

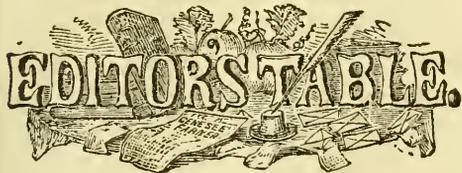
CREAM CAKE.—One cup of butter, two and a half of sugar, four of flour, five eggs, one cup of cream, and a little saleratus. Season with lemon or cinnamon.

LEATHER GINGERBREAD.—One cup of molasses, seven tablespoonsful of water, five of lard, one teaspoonful of saleratus, a little salt, and cinnamon or ginger.

MOTHER'S CAKE.—Two cups of sugar, one of sour cream, one-half cup of butter, four eggs, two cups of raisins, saleratus and spice.

MAXIM.—A good cook never sticks a fork into meat while cooking, as it leaves a place for the juices to escape through.

A GOOD HOUSEWIFE is one of the first blessings in the economy of life. Men put a great value upon the housewife qualifications of their partners, *after* marriage, however little they may weigh with them *before*; and there is nothing which tends more to mar the felicities of married life, than a recklessness or want of knowledge, in the new housekeeper, of the duties which belong to her station. We admire beauty, and order, and system, in every thing, and we admire good fare. If these are found in their dwelling, and are seasoned with good nature and good sense, men will seek for their chief enjoyments at home,—they will love their home and their partners, and strive to reciprocate the kind offices of duty and affection. Mothers that study the welfare of their daughters, will not fail to instruct them in the qualifications of married life; and daughters that appreciate the value of these qualifications, will not fail to acquire them.



New Advertisements this Month.

Bloomington Nursery—F. K. Phoenix, Bloomington, Ill.
 Drain Tile Machines—A. La Tourette, Waterloo, N. Y.
 Baker Apple Grafts—F. A. Rockwell, Ridgefield, Conn.
 Price Catalogues—Wm. R. Prince & Co., Flushing, L. I.
 Highland Nurseries—A. Saul, Newburgh, N. Y.
 Webster's Unabridged Dictionary—G. & C. Merriam, Springfield, Mass.
 No. 1 Peruvian Guano—A. Longett, New York.
 Field and Flower Seeds—Wm. Thorburn, Albany, N. Y.
 Genuine Hubbard Squash Seed—Wm. Thorburn, Albany, N. Y.
 White Top Onion Sets—Wm. Thorburn, Albany, N. Y.
 Nansmond Sweet Potato—Emory Luce, Ashtabula, Ohio.
 Flower Seeds—Wm. Thorburn, Albany, N. Y.
 Flower Seeds by Mail—G. E. Garretson, Flushing, L. I.
 Thorough-bred North Devons at Auction—C. N. Wainright, Rhinebeck, N. Y.
 Extra Daniel O'Rourke Peas—Wm. Thorburn, Albany, N. Y.
 Pine Hill Nursery—Godfrey Zimmerman, Buffalo, N. Y.
 To Horsemen—Samuel G. Welling, New Rochelle, N. Y.
 Female Agents Wanted—Marie Louise Hankins & Co., New York.
 Herring's Patent Fire and Burglar-Proof Safes—James G. Dudley, Buffalo, N. Y.
 Cast Steel Bells—James G. Dudley, Buffalo, N. Y.
 Howe's Improved Hay or Cattle Scale—James G. Dudley, Buffalo, N. Y.
 Myatt's Victoria Rhubarb—D. C. Andrews, Woodbury, N. J.
 Hardy Plum Trees—Oneida Community, Oneida, N. Y.
 French Hybrid Gladiolus—J. M. Thorburn & Co., New York.
 Tree and Shrub Seeds—J. M. Thorburn & Co., New York.
 Nansmond Sweet Potato Plants—C. B. Murray, Foster's Crossings, Ohio.
 Rochester Central Nurseries—C. W. Seelye, Rochester, N. Y.
 New York State Agricultural Works—Wheeler, Melick & Co., Albany, N. Y.
 Seedling Potatoes—Jonathan Talcott, Rome, N. Y.
 Chufas, or Earth Almonds—Wm. Thorburn, Albany, N. Y.
 Peavine Clover—Wm. Thorburn, Albany, N. Y.
 Chinese Sugar Cane—L. W. Briggs, West Macedon, N. Y.
 Choice Tobacco Seeds—Allen & McElwain, Springfield, Mass.
 Wilson's Albany Seedling Strawberry—W. H. Hayes, Bridge-water, N. Y.
 Flower Seeds by Mail—J. M. Thorburn & Co., New York.
 The Rural Empire Club—L. W. Briggs, West Macedon, N. Y.
 Spring Garden Seeds—J. M. Thorburn & Co., New York.
 Kedzie's Rain and River Water Filter—James Terry & Co., Rochester, N. Y.
 Seed Potatoes—Alfred Vail, Waterloo, N. Y.
 Flower Seeds by Mail—Allen & McElwain, Springfield, Mass.
 Honolulu Nectarine Squash—L. W. Briggs, W. Macedon, N. Y.
 Valuable Seeds—Hubert & Co., Little Wichita, Texas.
 Hubbard Squash—James J. H. Gregory, Marblehead, Mass.
 Cranberry Vines—Noble Hill, Caton, N. Y.
 Trant's Evergreen Pea—Wm. Thorburn, Albany, N. Y.
 Genuine Hubbard Squash Seed—Allen & McElwain, Springfield, Mass.
 Marblehead Drumhead Cabbage—James J. H. Gregory, Marblehead, Mass.
 Japan Apple Pie Melon—Allen & McElwain, Springfield, Mass.
 Fancy Poultry, Rabbits, etc.—E. S. Ralph, Buffalo, N. Y.
 New Book on Grape Culture—Wm. Bright, Philadelphia, Pa.
 Wilson's Albany Seedling Strawberry—C. L. Twing, Lansingburgh, N. Y.
 Wilson's Albany Strawberry Vines—Joseph Caldwell, Troy, N. Y.

NOTES ON THE WEATHER FROM FEBRUARY 15TH TO MARCH 16TH, 1860.—The first four days of the last half of February were cold, on the 17th as low as 2° above at eve and only 9° for the average. The 22nd, 27th and 29th were quite warm, and spring-like, rare weather for the season. Indeed the average for the last half was 30.1°, or 3° above the mean of 23 years. The hottest day was the 22nd.

Of the whole month the average was 26.5°, not 1° above the mean for 23 years, and 1° below that of January, for February is often the coldest month. The average of Feb., 1859, was 30°; Feb., 1858, 21°; of 1857 33°; of 1856, 18°.

The water in Feb. was 1.354 inch.

The week's sleighing, which ended on the 22nd, was followed with pleasant wheeling.

Feb. 13th made ice at London, Eng., and skating on the ice in the Parks; cold, 26°, and ice unsafe.

On the 22nd was an extensive snow storm from Maine along the Atlantic to Georgia and west perhaps to the Mississippi. The Genesee rose, and continued higher to the end of the month, which closed with rain and was warm.

March came in warm, with rain; and though frost, and winds rough and raw, with snow squalls occurred, the weather was warm to the 13th, when the thermometer was 6° in the morning. On the 12th snow fell wide over the country, some 8 or 9 inches deep from early morning to eve, more snow than in any day in the winter. The next evening (13th) was a splendid Aurora borealis, crimson colored, at 7 p. m. and for half an hour, and then white for an hour or more.

The average of this half month was 35.2°, and for 23 years was 29.9°, which is 1° less than for this fortnight in 1859. Previous to this, this period was colder; as for 1858, 22.9°; 1857, 22.1°; and 1856, was 19.3°, a difference of 16° for 1860 and 1856. The highest temperature was 61° on the 7th, and the warmest day 50.3°.

The spring birds began to appear early in the month; pigeons flew over; robins came on the 10th, blackbirds soon after, with others; grass begins to start.

The indications are, that the spring will be early. But this is to be seen. The grass has started in many places; but there will probably be cold enough to check too rapid growth of buds. There are great fields of snow in Canada, over which the northerly winds will come thoroughly cooled. Lake navigation has commenced. On the 6th the first steamboat reached Albany from New York. The Genesee has risen considerably, and been rather high for a short time.

A COMPLETE SET OF THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY, consisting of five volumes (1856-7, 8-9 and '60,) will be sent by mail, postage paid, to any address for *one dollar*. This is a rare chance to secure a complete set of this useful work which may never occur again. They will be sent the day the money is received. Address JOSEPH HARRIS, Rochester, N. Y.

MARKET REPORTS.—The majority of farmers are not much interested in the state of the markets at this season, and we have concluded to omit our usual report this month.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1860 will be sent prepaid by mail to any address, on the receipt of 25 cents in postage stamps.

THE NEW HAVEN AGRICULTURAL LECTURES.—The success of the course of Agricultural and Horticultural lectures at New Haven surpassed the most sanguine expectations of the friends of the movement, although we believe the receipts were not quite equal to the expenses. This course of practical and scientific lectures will form a bright epoch in our agricultural history. A similar course will be given next winter under more favorable circumstances. The new building of the Philosophical Department is nearly completed, and the lectures will in future be held there. This building cost \$40,000—the princely gift of Mr. Sheffield, of New Haven. Prof. Porter states that a fund of \$25,000 may be relied upon as working capital. On the last day of the course \$7,500 was subscribed to this fund. An agricultural museum and library will be provided. The new laboratory of Prof. S. W. JOHNSON, who is unquestionably the ablest agricultural chemist in the United States, is in this new building, and is one of the best we have ever seen. The Scientific Department of Yale is an honor to the college and the country.

Owing to the unusual press of matter in our columns this month, we are unable to give sketches of these lectures, but shall do so at a future time.

THE PEACH BUDS.—There are many conflicting statements in regard to the peach buds in this section. A farmer who has a fifteen acre peach orchard near the Lake, informs us that three-fourths of the buds are uninjured, and the promise is good for a full average crop. On the other hand, a gentleman from Avon, who resides about 20 miles from the Lake, informs us that the buds are nearly all killed in his neighborhood.

THE CHEAPEST HORTICULTURAL WORK IN THE WORLD.—The five volumes of the *Rural Annual and Horticultural Directory*, viz.: for the years 1856-7-8-9 and '60, will be sent to any address, prepaid by mail, for one dollar! Any of our readers who have the volume for 1860 can have the four volumes to complete their set for 50 cents. Any single volume will be sent for 25 cents.

APRIL PREMIUMS.—The time for competing for our April Premiums (amounting to \$235) expires on the 15th of April. Every one of our agents should send in the names they have by that time, as they may thus secure a Prize. Will not our friends make one more effort to increase our circulation? It is not yet too late; but what is done must be done at once.

We are indebted to Messrs. ALEX & McELWAIN, of Springfield, Mass., for a choice collection of their flower seeds. Also to J. W. PEPPER for some seeds of the Canadian Mammoth Pumpkin, which, he says, is the largest he ever saw or heard of till he received the January number of the *Genesee Farmer*! Some of the pumpkins weigh 200 lbs.

THE LAST CALL.—The time for competing for the April Premiums expires on the fifteenth of this month. All our friends who are competing for these premiums should send in the names by that date—and all who are not competing should do the same, for many will take a prize who do not expect it. Let us hear from all our friends at once.

BOUND VOLUMES OF THE GENESSEE FARMER.—In reply to several inquiries we would say that we cannot furnish a complete set of the back volumes of the *Genesee Farmer*. We have a few volumes of 1847-48 and 1856-57-58 and 59, bound in paper, that we will sell for 75 cents each. We have also a few volumes of 1847, 1852, 1853, 1855, '56, '57, '58 and '59, handsomely bound in boards, that we will sell at one dollar each. They will be sent prepaid by mail to any address, on the receipt of price. Those who wish them should avail themselves of this opportunity at once.

Inquiries and Answers.

PLASTER FOR GRASSES—JOINT WORM IN BARLEY—STABLES FOR COWS, ETC.—I would like to make several inquiries, as follows: Is gypsum beneficial to either Timothy or June grass meadows? Does it enter into the composition of these grasses? If not, how is it beneficial, if at all? Analysis shows gypsum as an element of clover; but as far as my observation goes, I have failed to notice any benefit when sown on either Timothy or June grass.

2d. Will some one give some information relative to what is here termed the "joint worm," in barley? Is there a benefit by either early or late sowing in preventing its ravages? I am confident my last sown barley was injured most—which was sown on the 12th of May last, on rather mellow soil. I understand the worm is hardly known in some sections, while hereabouts it is very injurious.

3. I shall feel much obliged if some practical man will give a good plan for a stable for forty cows, with a manure cellar beneath, so that I may save the solid and liquid manure without the unavoidable waste by throwing it out of doors. Is it the better method to have a cistern for the liquid, or mix absorbents, such as muck, straw, leaves from the forest, etc., with the manure? It is recommended to expose composts in the open air, with many turnings, several months before applying; would it not be well to throw up the muck in the dry season, and after drying awhile, haul to the manure cellar for mixing with the manure during the winter, and applying the whole in a green state next spring—taking labor and all into account? Is not the practice recommended of exposing some time to the elements the compost heap, tending to enrich the atmosphere and impoverish the soil, in a measure, by the escape of gasses evolved by decomposition?—*INQUIRER, Sanford's Corners, N. Y.*

Gypsum or plaster is composed of sulphuric acid and lime, and these enter into the composition of all plants grown for food. Why it is beneficial on clover and not on Timothy grass is perhaps owing to the fact that Timothy requires more ammonia than clover, and the latter being deficient, the plaster can do no good until the deficiency is supplied.

We should be glad if some of our experienced correspondents would give their views on these subjects.

Eds.

LADY APPLE.—(E. N. L., *Granville, N. Y.*) Downing's Fruits and Fruit Trees of America has the following description of the Lady Apple:

An exquisite little dessert fruit, the pretty size and beautiful color of which, render it a universal favorite; as it is a great bearer, it is also a profitable sort for the orchardist, bringing the highest price of any fancy apple in market.

Fruit quite small, but regularly formed and flat. Skin smooth and glossy, with a brilliant deep red cheek, contrasting with a lively lemon yellow ground. Stalk of medium length, and deeply inserted. Calyx small, sunk in a basin with small plaits. Flesh white, crisp, tender and juicy, with a pleasant flavor. The tree has straight, almost black shoots, with small leaves; forms a very upright, small head, and bears its fruit in bunches. The latter is very hardy, and may be left on the tree till severe frosts. The Lady Apple is in use from December to May.

CULTIVATION OF REEDS.—I have a piece of wet, mucky ground on my farm that I am at a loss what to do with, and should be glad if you could suggest any profitable use for it. I know you will tell me to drain it. But this is impracticable. Can nothing be done with it without draining?—G. R. T., *Erie Co., N. Y.*

If it is too wet for basket willows, the only profitable use that can be made of it is to plant it with the common Reed (*arundo phragmites*.) It grows where no other useful plant will, and requires no care or cultivation. Reeds flourish best in situations where they can have water flowing over their roots, and can either be transplanted from where they are growing wild, or can be raised by sowing the seed in the mud. Once they have possession of the soil they will increase by their stolons or runners and flourish to the exclusion of everything else.

According to Flint this grass affords a large amount of nutritive herbage while in a green succulent state. In Great Britain reeds are much used for the purpose of thatching cottages, outbuildings, stacks, &c.; and are often used for covering summer houses, from the neat appearance given to them; and such roofs are said to last fifty or sixty years. They make the best of covering for dairy houses. Sometimes light screens are made from them as a protection to wall fruit in winter, and they also form good coverings for protecting glass. They answer well for forming cones round tender shrubs or beehives, and could perhaps be made use of for packing fruit trees in for transportation. When cut for these purposes the stems should be full grown, ripe and still full of sap, as if allowed to die or become frozen, they are brittle and useless. The product of an acre is estimated in England as worth annually about twenty-five dollars, with no expense for cultivation.

HOW TO MAKE GRAFTING WAX, AND TO CUT AND PRESERVE SCIONS.—(J. R., *Crawford Co., Pa.*)—An excellent Grafting Wax for out-door grafting may be made by melting together one part of beeswax, three parts of rosin and two parts of tallow. While yet warm, the mixture may be worked up by hand.

For Root Grafting—Beeswax one part, rosin 4 parts, tallow one part.

The French make a very good material to wrap around fresh grafts, by melting equal parts of beeswax, turpentine and rosin, and spreading it while warm on strips of coarse cotton or strong paper. Scions are usually cut in winter or early spring, from the shoots of new wood formed the previous year. They should be straight and thrifty, and can be preserved by burying them in a box of sand in the cellar. When wanted for use, they may be cut again into pieces containing three or four buds each.

MANURE FOR SPRING WHEAT.—Will any of your experienced correspondents inform me through the medium of the *Farmer*, whether fresh barnyard manure, spread and ploughed under in the spring, will be suitable for spring wheat? The land was last year in corn, but is rather poor.—JAS. HOWIE, *Dexter. C. W.*

Fresh barn yard manure is not perhaps generally advisable for spring wheat, but if no other can be had, and the land is poor, it will be better than none at all. We hope some of our correspondents will give their views on this subject.

CHINESE HOGS.—(J. S.)—H. Fenner, of South Orange, N. J., has some of these hogs for sale.

SOFT GRASS.—Can you inform me if what we call Soft Grass in the west of Scotland is the same as Meadow Foxtail, and if so, if it will stand our winters?—J. H. H., *Morrison, C. W.*

The Meadow Soft Grass, (*Holcus lanatus*), is a different species from the Meadow Foxtail, (*Alopecurus pratensis*.) Both these grasses are found in the New England States, where they appear to stand the winter well, and would doubtless do the same in Canada. The Meadow Foxtail is however the most valuable of the two, and is considered worth cultivating in some localities as a pasture grass, when mixed with other grasses. The other is of little value.

COLORING PLATES.—(R. T. S.) D. M. DEWEY, of this city, is extensively engaged in the preparation of colored plates of fruits, flowers, trees, shrubs, &c., and you can get from him what you wish. He will send you a catalogue of the varieties, price, &c., on application. We are informed that he sold fifteen thousand of these plates last year to nurserymen, fruit tree dealers, &c. He has just shown us three handsome volumes of these plates prepared for a gentleman in Missouri.

FARMS FOR SALE IN WESTERN NEW YORK.—Do you know of a good farm, on Cayuga Lake or any of the lakes of Western New York, for sale at a fair price—from 150 to 300 acres?—LOYD MINTURN, *Ferrisburgh Center, Vt.*

Any of our readers wishing to sell their farms would do well to advertise in the *Genesee Farmer*.

GRAFTING SEEDLING APPLE STOCKS.—(W. C., *Croydon, C. W.*) It is perfectly safe for you to leave your Seedling Apple Stocks in the ground during winter, and pull and graft as you may desire in the spring, without, however, delaying their removal until the sap flows.

BREMEN GEES.—(DOWNER TREMBLY, *Muskingum Co., Ohio.*)—We have made several inquiries for you, but have been unable to discover who have these geese for sale. If any of our readers have them, or know who has, we shall be much obliged for the information.

WIRE WORMS.—(C. INMAN, *Mich.*) The wire worm is the larva of a tribe of insects known as Click Beetles or "Snapping Bugs," a description and cut of which will be found on page 51 of the Rural Annual for 1860.

CUTTING BOX.—"York."—The best we know of is the Rochester Premium Cutting Box, manufactured by A. Gordon & Co., of this city. The price varies from \$12 to \$25, according to size.

SEED DRILLS.—I bought last spring one of Kuhns & Haines' Seed Drills. It works well, but on ground plowed the fall previous it does not leave it sufficiently covered. Now which will be the best, (on our light prairie land,) to harrow it crosswise after the drill, or do nothing but roll it after?—EDWIN R. HEALY, *Muscatine Co., Iowa.*

WINTER OATS.—I would like to know if Winter Oats would be a profitable crop for this section of country? If so, could seed be obtained nearer than North Carolina?—GEO. WRIGHT, *Genesee Co., N. Y.*

DESTROYING WILD FLAX.—I would like to know of some method of destroying that annoying weed known as Wild Flax. It has overrun some ten acres of my land.—D. LANDIS, *Lancaster, Pa.*

FEEDING PEAS TO PIGS.—What is the best method of feeding peas to pigs in winter, whether boiled or not? Will some of your correspondents answer?—R. J. S., *Hillsburg, C. W.*

VALUABLE SEEDS!

AGRICULTURISTS AND FARMERS NOTICE !!

1st—THE MUSTANG GRAPE, of Texas. This Grape is a native of Texas, but will grow *finely anywhere*. It bears more fruit than any other vine, which makes the *finest article of Wine*. For preserving, &c., it is unsurpassed.

To those who wish to cultivate, or try it, we will send a large package of the seed for One Dollar, or, if preferred, a packet of *Fifty Young Vines, with Roots*, fixed so as not to injure or *wither*, for Two Dollars, by mail to any address.

HUBERT & CO.,
Little Wichita, Clay Co., Texas.

2d—THE "TURKISH FLINT WHEAT." This celebrated Wheat produces *three times* as much as any other Wheat ever sown. The flour is of the finest and sweetest quality—as white as the driven snow.

Enough seed to produce, at the *first* planting, from 10 to 12 bushels, will be sent in a strong linen sack, by mail, for One Dollar. Address,
HUBERT & CO.,
Little Wichita, Clay Co., Texas."

3d—THE "PINE-APPLE PUMPKIN." Every housekeeper should have this delicious vegetable. It is better than any "dried peaches," apples, or anything of the kind, for making pies, puddings, custards, etc., or to eat alone.

A large package of seed sent by mail for One Dollar.
Direct to
HUBERT & CO.,
April—4t Little Wichita, Clay Co., Texas."

Honolulu Nectarine Squash.

UNIVERSALLY pronounced a *marvel*; Named and introduced by the "Rural Empire Club" in 1853. Samples of the Stewed and Dried Squash passed around by mail, called forth the following expressions, which we have selected from hundreds on account of their brevity:

From B. P. Johnson, Sec. N. Y. S. Ag. Soc.—"Never have tasted anything in the Squash line that compares with this."

From H. Meiggs, Sec. Far. s Club, N. Y.—"Without poetry, your squash is nectareous."

From D. Redmond, Ed. Southern Cult., Ga.—"The squash is a marvel—real confectionary."

From C. M. Saxton, Pub. Horticulturist, N. Y.—"The *women folks* pronounced it splendid! Pray tell me more about this squash."

From the Co. Gent., Albany, N. Y.—"Its texture is so fine that it all melts away in the mouth."

From the Rural New Yorker, Rochester, N. Y.—"Is certainly a vast improvement in flavor and sweetness from anything in the way of unadulterated squash that we ever before tasted."

From the Lowell Courier, Mass.—"Without exception the finest squash we ever tasted, and is greatly superior even to the Hubbard."

A small specimen of this *Dried Nectar* will be forwarded to all applicants who wish to know more of this Vine-fruit. And seeds in any quantity for \$1 per doz. to any address in the U. S. or Can. adas, post paid, by mail.

Address
I. W. BRIGGS,
April—1t West Macedon, Wayne Co., N. Y.

FLOWER SEEDS BY MAIL.

ALLEN & McELWAIN,

Seedsmen and Florists, Springfield, Massachusetts.

WE invite the attention of all Cultivators of Flowers, to the following collection of choice and rare Seeds, comprising the most beautiful and showy Annuals, Biennials and Perennials, and embracing the finest PEONY FLOWERED ASTERS, CAMELLIA FLOWERED BALSAMS, GERMAN STOCKS, ENGLISH PANSIES, CARNATION and PICOTEE PINKS, DOUBLE HOLLYHOCKS, CALCEOLARIAS, CINEBARIAS, &c., which will be forwarded to any address in the Union, upon receipt of the price, viz:

No.	COLLECTIONS.	PRICE.
1	—Contains Twenty varieties of Annuals.....	\$1 00
2	—Twenty varieties of Biennials and Perennials.....	1 00
3	—Ten extra fine varieties of rare Annuals and Perennials.....	1 00
4	—Five choice varieties, from PRIZE FLOWERS, of French Asters, German Carnation and Picotee Pinks, English Pansies, Verbenas and Hollyhocks, each of which is sold at 25 cents, singly.....	1 00
5	—Fifty varieties (including Collection No. 4.) Annuals, Biennials and Perennials.....	2 50
6	—One Hundred varieties.....	5 00

We also offer many other collections, by mail, for list of which see Catalogue, which will be forwarded to any address upon receipt of a three cent stamp.

Address
ALLEN & McELWAIN,
April—1t Springfield Mass.

SEED POTATOES.

PRINCE ALBERTS and Peach Blows, each \$2 per bbl; Buck-eyes, \$1.50, delivered on the cars.

April—1t* ALFRED VAIL, Waterloo, N. Y.

Kedzie's Rain and River Water Filter



IS no longer an experiment. It possesses every *practical* and *scientific* arrangement for rendering the most impure Rain and River Water free from all decomposed organic matters and gases, taste, color and smell.

They are PORTABLE, DURABLE, CONVENIENT and CHEAP; can be transported any distance in safety, and are sure to give satisfaction.

Manufactured by
JAMES TERRY & CO.,
Rochester, N. Y.
April, 1860.—3t

Descriptive circulars sent free.

The Rural Empire Club

OFFERS the following list of rarities by mail:

Honolulu, Nectarine, Pine Apple, Snowball, Hubbard and Mammoth Squashes; No Plus Ultra, Lord Kenyon's Favorite, Man of Kent, and Prolific Pickle Cucumbers; Apple Pie Melon, and *Variety Package* of Melons, embracing 12 best varieties mixed; Gherkin and Pomegranate, or Egg Melon; Early Paris Cauliflower and Premium Flat Dutch Cabbage; Feejee Island and Large Purple Tomato; Long S-rowed White Pop, Washington Putton, Wyndot Prolific and Excelsoir Sweet Corn; Jones & Son's renowned Green Centred Helianthus and choice mixed German and French Asters; Sweet Winter Turnips; Buena Vista Beans; Poland Oats; Broad Leaf Tobacco; Beardless Barley; Hungarian Grass Seed and Chinese Sugar Cane Seed. Single packages for 25 cents each. Selections of six varieties for \$1.00. Twenty varieties for \$2.00. Address
I. W. BRIGGS, West Macedon,
April—1t Wayne county, N. Y.

SPRING GARDEN SEEDS.—The most complete assortment ever offered to the public. Also,

- KENTUCKY BLUE GRASS,
- ORCHARD GRASS,
- TIMOTHY,
- RED TOP,
- RHODE ISLAND BENT GRASS,
- ENGLISH & ITALIAN RYE GRASS,
- WHITE & RED CLOVER,
- LUCERNE,
- SEED POTATOES,

a choice assortment. For descriptions and prices send for our Catalogue.
J. M. THORBURN & CO.,
15 John street, New York.

FLOWER SEEDS BY MAIL.

OUR OWN SELECTION OF
25 varieties for..... \$1 00
50 varieties for..... 2 00
100 varieties for..... 4 00
Persons ordering either of the above assortments may rely upon a beautiful collection.

April—1t J. M. THORBURN & CO.,
15 John Street, New York.

Wilson's Albany Seedling Strawberry.

FIFTY THOUSAND for sale at Five Dollars per thousand, or Three Dollars for five hundred, packed in moss and delivered at Express or R. R. Freight office. W. H. HAYES,
April—1t Bridgewater, Oneida Co., N. Y.

CHOICE TOBACCO SEEDS.

1-2 oz. genuine Conn. Seed Leaf for 25 cts.
2 1/2 oz. celebrated Sperry "25"
Post paid. ALLEN & McELWAIN,
April—1t Springfield, Mass.

CHINESE SUGAR CANE.—First quality of seed grown in Ga., 10 lbs. for \$1, or \$2 50 per bushel. Samples sent to all parties enclosing the postage. Poland Oats and Mexican Potatoes at one dollar per bushel.

Address
I. W. BRIGGS,
April—1t W. Macedon, Wayne Co., N. Y.

PEAVINE CLOVER.—[See Country Gentleman for Jan. 5, 1860, page 17]. The genuine article just received. At 12 1/2 cents per pound. For sale by

WILLIAM THORBURN,
April—1t 492 Broadway, Albany, N. Y.

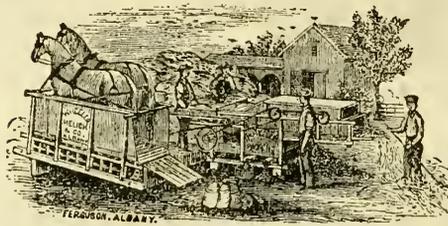
CHUFAS, OR EARTH ALMONDS, at 10 cents per ounce by mail, 19 cents. For sale by
WM. THORBURN,
april 492 Broadway, Albany, N. Y.

PRINCE ALBERT and Davis' Seedling Potatoes, at \$1 per bushel (no charge for sacks); 10 bushels to one address for \$7 50, sent as directed, on receipt of cash, with directions for shipping. Please to send your orders to
April—1t JONATHAN TALCOTT, Rome, N. Y.

WHEELER, MELICK & CO.,

PROPRIETORS

N. Y. STATE AGRICULTURAL WORKS.



[Double Power and Combined Thresher and Winnower at Work.]

MANUFACTURERS of Endless Chain Railway Horse Powers and Farmers' and Planters' Machinery for Horse Power use, and owners of the Patents on, and principal makers of the following valuable Machines:

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

Improved Combined Thresher and Winnower.

[SHOWN IN THE CUT]

Wheeler's Improved Patent Combined Thresher and Winnower is a model of simplicity and compactness, and is made in the most substantial manner, so that its durability equals its efficiency and perfection of work. Its capacity, under ordinary circumstances, has been from 125 to 175 bushels of Wheat, and from 200 to 300 bushels of Oats per day. It works all other kinds of grain equally well, and also threshes and cleans Rice, Clover and Timothy Seed. Price, \$245.

WHEELER'S PATENT SINGLE HORSE POWER,

AND

Overshot Thresher with Vibrating Separator,

Threshes from 75 to 100 bushels of Wheat, or twice as many Oats per day, without changing horses—by a change, nearly double the quantity may be threshed. Price, \$125.

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

Overshot Thresher with Vibrating Separator,

Does double the work of the Single Machine, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing. Price, \$160.

WHEELER'S NEW FOUR HORSE, OR SIX MULE HORSE POWER,

Is a recent invention, designed to meet the wants of Southern and Western customers. We believe it is the simplest and most perfect Lever Power made. Price, \$100.

Also, Circular and Cross-Cut Sawing Machines, Clover Hullers, Feed Cutters, Horse Rakes, and other Farming Machines.

To persons wishing more information and applying by mail, we will forward a Circular containing such details as purchasers mostly want—and can refer to gentlemen having our Machines in every State and Territory.

Our firm having been engaged in manufacturing this class of Agricultural Machinery 25 years, and have had longer, larger and more extended and successful experience than any other house.

All our Machines are warranted to give entire satisfaction, or may be returned at the expiration of a reasonable time for trial.

Orders accompanied with satisfactory references, will be filled with promptness and fidelity; and Machines securely packed will be forwarded according to instructions, or by cheapest and best routes.

WHEELER, MELICK & CO.,

April—14

ALBANY, N. Y.

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE.

- IF YOU WANT FRUIT TREES,**
Send for a Catalogue and make a selection.
 - IF YOU WANT GRAPE VINES,**
Send for a Catalogue and make a selection.
 - IF YOU WANT STRAWBERRY PLANTS,**
Send for a Catalogue and make a selection.
 - IF YOU WANT BLACKBERRY PLANTS,**
Send for a Catalogue and make a selection.
 - IF you want CURRANTS, GOOSEBERRIES, Raspberries, &c.**
Send for a Catalogue and make a selection.
 - IF YOU WANT SHADE TREES,**
Send for a Catalogue and make a selection.
 - IF YOU WANT SHRUBBERY,**
Send for a Catalogue and make a selection.
 - IF YOU WANT EVERGREENS,**
Send for a Catalogue and make a selection.
 - IF YOU WANT ROSES.**
Send for a Catalogue and make a selection.
 - IF YOU WANT GREEN HOUSE PLANTS,**
Send for a Catalogue and make a selection.
 - IF YOU WANT BEDDING PLANTS,**
Send for a Catalogue and make a selection.
- If you want any kind of FRUIT or ORNAMENTAL TREES, or SHRUBS, send for a Catalogue to C. W. SEELYE, April—14 Rochester Central Nurseries, Rochester, N. Y.



NANSEMOND SWEET POTATOE PLANTS—
For Northern planting. A superior article.

Packed to go Safely Long Distances.

Prices—400 for \$1, 1,000 for \$2, 5,000 for \$3, 10,000 for \$15, during May and June.

Send stamp for circular of directions in culture, and experience of growers at the North.

C. B. MURRAY,
(Late O. S. Murray & Son.)
Foster's Crossings, Ohio.

TREE AND SHRUB SEEDS.

Norway Spruce,	per lb.	75
European Silver Fir,	"	1 00
Balsam Fir,	"	3 00
Hemlock Spruce (clean seed),	"	6 00
American Arber Vitae (clean seed),	"	6 00
Chinese,	"	3 00
Stone Pine,	"	1 50
Black Austrian Pine,	"	3 00
Scotch Fir,	"	1 50
Scotch Larch,	"	3 00
American Bald Cypress (beautiful),	per qt.	30
Strawberry Tree (Arbutus unedo),	per oz.	40
Hop Tree,	"	25
Buckthorn,	per lb.	1 00

Tree seed catalogues on application to
J. M. THORBURN & CO.,
15 John street, New York.

BEAUTIFUL FRENCH HYBRID GLADIOLUS.

WE have just received fifty named varieties of the above species.

Price from 15 cents to \$1.50 each.

Also, all other varieties of

GLADIOLUS,
JACOBAN LILIES,
TUBEROSES,

TIGER FLOWERS, &c., &c. &c.

for which see our Flower Seed Catalogue.
J. M. THORBURN & CO.
15 John street, New York.

1,000 HARDY PLUM TREES, 1 and 2 years, extra.
2,000 PEAR TREES, approved sorts, 2 years.
2,000 CONCORD and CLINTON Grape Vines, 1 year.
10,000 WILSON'S ALBANY STRAWBERRY PLANTS, grown with care.

For terms address 'Onida Community, Onida, N. Y.'

April—14

MYATT'S VICTORIA RHUBARB—For sale at \$5.00 per 100. Warranted, by D. C. ANDREWS,
April—14* Woodbury, Gloucester Co., N. J.

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy, REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give *entire satisfaction*, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to

JAMES G. DUDLEY, General Western Agent,
April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by

JAMES G. DUDLEY,
April, 1860. 93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

BY MORE THAN 300 DISASTROUS FIRES.

The Safest and Best safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent,
April, 1860. 93 Main street, Buffalo, N. Y.

\$30 A WEEK.—FEMALE AGENTS WANTED at home, or to travel, on Salary or Commission, for

"THE WOMAN'S FRIEND,"

a Periodical of pure and practical morality, exclusively for the Female sex, at only 60 cents a year; also for the

"MAMMOTH FAMILY PICTORIAL,"

the largest illustrated Family paper in the world, at only \$1 a year. For "Confidential Terms" to Female Agents, specimen copies, etc., enclose a three-cent stamp to MARIE LOUISE HANKINS & CO., 429 Broadway, New York. April—2t

TO HORSEMEN.

WELLING'S WORM DIURETIC AND CONDITION POWDERS, made after Veterinary Physicians' recipes, are very efficacious when given to Horses suffering from inflammation of the lungs, heaves, worms, surfeit, moulting, or when hide-bound. Testimonials from farmers, city-railroad men, and other owners of horses, with directions for use, may be had on application to SAMUEL G. WELLING, Apothecary, New Rochelle, Westchester county, N. Y. The trade supplied at \$4 per dozen, large boxes of one dozen doses each. Retail price, 50 cents per box. April, 1860.—3t*

GODFREY ZIMMERMAN, PINE HILL NURSERY—

Near Buffalo, N. Y., offers for sale the following trees: Standard and Dwarf Apples and Pears, Cherries, Peaches, Plums (mostly the German Prune, the freest from black-knot), and Orange or Apple-Quince.

Currents, best varieties; Raspberries and Gooseberries. Of Grapes, besides the old varieties: Delaware, Diana, Concord, Rebecca, Hartford Prolific, and To-Kalon.

Also, Downing's Everbearing Mulberry, Norway Spruce, Black Spruce, Hemlock Spruce, Red Cedar and Arbor Vita. Price Catalogues sent on application. April—1t

EXTRA DANIEL O'ROURKE PEAS—These celebrated Early Peas (to which the particular attention of Market Gardeners is called) for earliness, productiveness and length of pod, cannot be surpassed. Price \$6 per bushel—25 cents per quart. For sale by

WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.

WHO CAN EQUAL IT?

A GENTLEMAN residing in Jefferson county, N. Y., having sold one of our Three Horse Endless Chain Powers and Combined Thresher and Winnow, wrote to us upon remitting pay for the same, that Mr. Sprague, the purchaser, had threshed 240 bushels of barley in three hours, and that he was doing more than the eight-horse machines.

Also, Mr. Clark, of Chautauque county, wrote to us that he had threshed 69 bushels of wheat in 70 minutes, and 100 bushels of oats per hour.

Still more we have. Mr. E. H. Barnard, of Pittsford, Monroe county, N. Y., says of our Two Horse Power Threshers and Winnowers: The Messrs. Miller threshed 60 bushels of oats in 55 minutes, for four consecutive hours, without extra exertion, and the oats were fed loose, never having been bound.

Our Endless Chain Powers for One, Two and Three Horses, Lever Powers, Combined Threshers and Winnowers, and Threshers with Vibrating Separators, have met with unequalled success wherever introduced.

We also manufacture a Clover Machine lately much improved, which can not be surpassed for durability or quality and quantity of its work.

We warrant all our machines to suit purchasers.

For full particulars and Price List, send for our Descriptive Circular, which will be sent to all applicants.

Address G. WESTINGHOUSE & CO.
March, 1860.—3t Agricultural Works, Schenectady, N. Y.

Thorough-Bred North Devons

AT PUBLIC AUCTION.

THE subscriber intends holding his Second Public Sale of Devon Cattle on *Wednesday, the 6th day of June* next, when he will offer between 20 and 30 head, males and females, of his own breeding—all Herd-book animals and of superior excellence. As at his previous sale, each lot will be started at a very low price, and sold *without reserve* to the highest bidder over that amount.

Catalogues containing pedigrees of the animals to be sold, and full particulars as to terms, &c., will be ready by the 15th of April, and will be sent, on application, to all desiring it.

C. S. WAINWRIGHT,
April—3t The Meadows, Rhinebeck, N. Y.

FLOWER SEEDS BY MAIL.

THE subscriber has for many years past spared no pains or expense in procuring, both in Europe and this country, every variety of *Annual Flower Seeds* that could be obtained, and after cultivating over one thousand varieties, has selected about one hundred kinds, with a view of including all the most desirable for hardy garden cultivation, a list of which will be sent to any one. And for \$1, THIRTY-THREE KINDS of any on the list will be sent by mail, postage paid.

Garden, Vegetable and Flower Seeds of all kinds have been largely grown by the subscriber for more than thirty years past. He has now nearly one hundred acres devoted to this purpose, and can furnish Seeds of all descriptions, of the choicest kinds and purest quality, at the lowest prices and in any quantity desired.

G. K. GARRETSON,
April—2t Flushing, Long Island, N. Y.

FLOWER SEEDS—FLOWER SEEDS—FLOWER SEEDS

FLOWER SEEDS.

A very choice selection of the leading varieties, neatly put up in Packages of 25 varieties, for..... \$1.00
" 50 varieties, for..... 2.00
" 100 varieties for..... 4.00
Will be forwarded by mail free of postage.

WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.

THE NANSEMOND SWEET POTATO—grown successfuly

in almost any locality in the United States. Send for my treatise on the cultivation, and priced catalogue of those and most all kinds Vegetable Plants. Sent by express to all parts of the country. Address EMORY LUCE,

April—1t Ashtabula, O.

WHITE TOP ONION SETS—A large quantity. The finest ever offered, to which the attention of Market Gardeners is particularly called. Price only \$5 per bushel (dirt cheap)—sacks 25 cents—delivered at Albany. For sale by

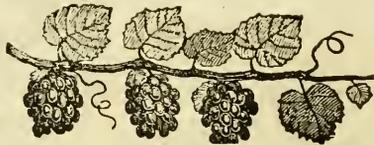
WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.

GENUINE HUBBARD SQUASH SEED, from the original introducer (J. H. Gregory), at 20 cents per package, or by mail 29 cents. \$2 per pound. For sale at the Albany Seed Store.

WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.

SEEDS!! SEEDS!! SEEDS!!—GARDEN, FIELD AND FLOWER SEEDS, Fresh and Genuine, at Wholesale and Retail, for sale by

WM. THORBURN,
April—1t 492 Broadway, Albany, N. Y.



ISABELLA AND CATAWBA GRAPE VINES.

MADE FROM FRUIT WOOD ALONE.

OF proper age for forming Vineyards, cultivated from and containing all the good qualities which the most improved cultivation for over twenty years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

The past season, though the coolest and most unfavorable for grape maturing we have had in many years, the subscriber ripened his whole crop,—proving that his Isabellas and Catawbas have become perfectly acclimated. This gives him full assurance that, by improved cultivation, pruning, &c., a crop of good fruit can be obtained EVERY YEAR, in most of the Northern, all of the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor. When the purchase is large, and approved paper or other security can be offered, a liberal credit on most of the purchase will be given.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.

Also, for sale at his PURE WINE AND GRAPE DEPOT, (No 7 Clinton Hall, Astor Place, N. Y. City,) Isabella and Catawba Wine in their Purify.

All communications addressed to R. T. UNDERHILL, M. D., New York, or Croton Point, Westchester Co., N. Y., will receive attention. March, 1860.—2t

Rare and Beautiful Flowers.

B. K. BLISS, SEEDSMAN AND FLORIST,
Springfield, Massachusetts,

WOULD respectfully inform his friends and patrons that his new Descriptive Catalogue of FLOWER AND VEGETABLE SEEDS is now ready for delivery, and will be mailed to all applicants enclosing a three-cent stamp. Much pains has been taken in preparing it, and it contains, in addition to the information usually found in such lists, many descriptive and cultural notes for the benefit of the amateur and unprofessional florist.

It will embrace all that is new and most desirable among Annuals, Biennials, Perennials, and Green House Seeds, alike suitable for the Flower Garden, Pleasure Grounds, Lawns, Shrubberies, and the Conservatory, as well as many matchless novelties of the highest merit, which have been collected by his European correspondents from the most reliable sources.

Collection of Flower Seeds by Mail, Postpaid.

The following collections have been sent out from his establishment for the past six years, and are now favorably known in every section of the country.

ASSORTMENT No. 1.—Contains twenty choice varieties of Annuals—\$1.00.

ASSORTMENT No. 2.—Contains twenty choice varieties of Biennials and Perennials—\$1.00.

ASSORTMENT No. 3.—Contains ten extra fine varieties of Annuals and Perennials, embracing many of the newest and choicest in cultivation—\$1.00.

ASSORTMENT No. 4.—Contains five very choice varieties selected from *Prize Flowers* of English Pansies, German Carnation and Picotee Pinks, Verbenas, Truffant's French Asters, Double Hollyhocks—\$1.00.

Any one remitting \$3.00 will receive the four assortments, postage free.

The Seeds contained in the above assortments are of his own selection. Purchasers who prefer to make their selection from the Catalogue will be entitled to a discount proportionate to the quantity ordered.

All orders must be accompanied with the Cash, which can be remitted in current bank bills or postage stamps.

Please address

March, 1860.—3t

B. K. BLISS,
Springfield, Mass.

NO. 1 PERUVIAN GUANO—Government brand and weight on every bag;

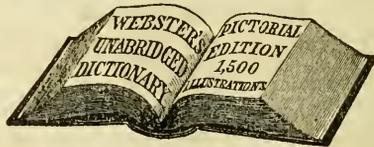
SUPER-PHOSPHATE OF LIME.

BONE DUST, LAND PLASTER, &c.,

For sale in quantities to suit purchasers at lowest market prices. Send for a circular.

April, 1860.—3t

A. LONGETT,
34 Cliff street, New York.



GET THE BEST.

WEBSTER'S UNABRIDGED DICTIONARY.

NEW PICTORIAL EDITION.

1500 PICTORIAL ILLUSTRATIONS.

9,000 to 10,000 NEW WORDS in the Vocabulary.

Table of SYNONYMS, by Prof. Goodrich.

With other new features, together with all the matter of previous editions. In one volume of 1750 pages. Price \$6.50. Sold by all booksellers.

G. & C. MERRIAM, Springfield, Mass.

“The eighty pages of Illustrations, comparable in fineness to those of bank notes, are worth the price of the book—*Ch. Herald*

“GET THE BEST.” GET THE HANDSOMEST.

GET THE CHEAPEST. GET WEBSTER.

Specimen pamphlets of the new features sent by mail on application. April, 1860.—1t

HIGHLAND NURSERIES,

NEWBURGH, N. Y.

A. Saul, Successor to the late A. J. Downing & Co.,

HAS the pleasure of announcing to the patrons of this old establishment, and the public in general, that his stock of Fruit and Ornamental Trees, Plants, &c., for sale for the ensuing Spring trade, is full and complete, and comprises everything to be obtained in his line of business, viz:

A large stock of Apple, Pear, Cherry, Plum, Peach, Apricot, Nectarine and Quince Trees, one to three years from bud, of superior quality and growth.

GRAPE VINES—Native and foreign, embracing all the new and rare varieties.

Gooseberries, Currants, Raspberries, Blackberries, and Strawberries, of all the best new and old proved varieties.

Rhubarb and Asparagus Roots, of all the best varieties.

ORNAMENTAL TREES.

EVERGREENS.—A very large stock of Norway Spruce of all sizes; Balsam Fir, European Silver Fir; Austrian, Scotch and White Pines; Hemlock and American Spruce; Arbor Vitae, Junipers (of sorts), and a great variety of New Conifers, from one to five feet high.

DECIDUOUS TREES.—Of extra size for Street Planting, and giving immediate effect to Parks, Lawns, Cemeteries, &c., &c., such as Maples (8 varieties), Elms (10 varieties), Ash (8 varieties), Oaks (6 varieties), Horsechestnuts, Catalpa, Ailanthus, Larch, Tulip tree, Abies, Negundo, Mountain Ash, Deciduous Cypress, Weeping Willows, American and European Lindens, &c., &c.

FLOWERING SHRUBS.—Over 50 choice species and varieties.

ROSES.—A large collection of Hybrid Perpetual, Hardy Garden, Moss China, Tea, and other Roses.

HEDGE PLANTS.—100,000 Osage Orange Plants of extra growth, one to three years old.

The above stock is all of the best quality and growth, and will be sold on the most reasonable terms.

A new Catalogue will be ready by the middle of March, and will be sent to all applicants on enclosing a postage stamp to prepay the same.

April, 1860.—1t

A. SAUL, Highland Nurseries,
Newburgh, N. Y.

WM R. PRINCE & CO., of Flushing, Long Island, will send the following Priced Catalogues to applicants who enclose stamps: No. 1. Fruit and Ornamental Trees, Raspberries, Currants, and all other small fruits. 2. Roses, and all Flowering Plants. 3. Wholesale Catalogue for Nurseries. 4. Descriptive Catalogue of Strawberries, 130 varieties. 5. Wholesale Catalogue of Native and Foreign Grapes. 6. Bulbous Flowers, Dahlias, Paeonies, &c. 7. Descriptive Catalogue of 400 varieties of Native and Foreign Grapes. April, 1860.—1t

HUBBARD SQUASH—Warranted pure. Packets containing Fifty Seeds will be sent to any address in the Union on receipt of five three-cent stamps. One hundred Seeds for nine three-cent stamps. Please address B. K. BLISS, March, 1860.—3t. Springfield, Mass

BAKER APPLE GRAFTS—By Mail, post-paid, at 50 cents per dozen, wrapped in oiled silk. Send stamps. April—1t F. A. ROCKWELL, Edgefield, Co;

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

“A STITCH IN TIME SAVES NINE.”

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mucilage, being vastly more adhesive.

“USEFUL IN EVERY HOUSE.”

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by **HENRY C. SPALDING & CO.,**
45 Cedar Street, New York.
Address Post-Office, Box No. 3,600 Dec., 1859.—1y

THE PEOPLE'S MILL,
SANFORD'S PATENT.

A FARM MILL, Portable, simple, compact, and made on an entirely new principle, with plates having a reciprocating and oscillating, instead of a rotary motion, with all the power applied within one inch of the center of the shaft, and one that has been fully tested and improved by two years' experience, is now offered to the public. Every Mill is tested, and not one is sent out unless it will grind a bushel of hard corn fine enough for stock feed in *eight minutes*; many kinds of grain it will grind much faster.

It is the **PREMIUM MILL** for the People, and obtained

THE SILVER MEDAL AT THE LATE EXHIBITION

at the American Institute in the city of New York.

The **PEOPLE'S MILL** can be put into any Saw-mill. The **PEOPLE'S MILL** is the cheapest Mill ever offered to the public. The **PEOPLE'S MILL** is the simplest Mill ever made. The **PEOPLE'S MILL** is the most durable in use.

The **PEOPLE'S MILL** has the most grinding surface of any portable mill.

The **PEOPLE'S MILL** requires less power than any other doing the same amount of work.

The **PEOPLE'S MILL** requires less speed than any other mill.

The **PEOPLE'S MILL** is adapted to any kind of power.

The **PEOPLE'S MILL** is not a rotary mill.

The **PEOPLE'S MILL** obviates all the objections to the cast iron rotary mill.

The **PEOPLE'S MILL** will grind all kinds of grain, coarse or fine, for feed.

The **PEOPLE'S MILL** will grind plaster, bones, salt, all kinds of grain, malt, peas, beans, spices, etc., etc.

The **PEOPLE'S MILL**, largest size, requires about two horse power. The **PEOPLE'S MILL** only requires about two hundred and fifty revolutions per minute.

The **PEOPLE'S MILL**, largest size, will grind from 150 to 200 bushels of grain in 24 hours.

The **PEOPLE'S MILL** may be renewed at the cost of the plates, which will be furnished at \$50 cents each.

The plates are made of hard iron, dressed or grooved on both sides, and the reciprocating motion keeps the grinders sharp. There is no bolt to it, which, we think, experience has proved of no use on portable mills. The common sieve is sufficient for all ordinary family purposes. Three sizes—

No. 1, A HAND-MILL, PRICE \$20, No. 2, \$30, No. 3, \$40.

LIBERAL DISCOUNT MADE TO DEALERS.

A mill may be seen in constant use at my shop; also at No. 17 Spruce St., New York, a few doors below the Tribune Building. I will fill all orders for Belting at cost.

Address **R. L. HOWARD,**
BUFFALO, N. Y.

I also manufacture the Improved Ketchum Grass and Grain Harvester. Feb'y—3t

ALL KINDS OF AGRICULTURAL BOOKS.—Farmers, Gardeners, Nurserymen, Fruit-Growers, Dairy-men, Cattle Dealers, and all persons interested in tilling the soil or adorning their grounds and dwellings, will be supplied with the most complete assortment of Books relating to their business that can be found in the world, by

C. M. SAXTON, BARKER & Co.,
Agricultural Booksellers, and Publishers of The Horticulturist, No. 25 Park-row, New York.
Catalogues gratis. Books sent by mail.

AGENTS WANTED. March, 1860—4t

FARMERS READ! FARMERS READ!!

The best of all modern inventions is “Shares' Coulter Harrow, Pulverizer and Grain Coverer,” which was used last season with grand success by very many of the best farmers in this country, and pronounced “Excelsior”—“nothing can excel.”—The price is only \$15, and it weighs only 155 lbs. Farmers having “Corn stubble,” or “Cabbage stubble,” or Fall-plowed s.d., who use this machine, need not use the plow in the Spring. This Coulter Harrow answers for the Plow, Cultivator and Harrow combined, besides saving its value in time. For particulars and Catalogues, address **WM. W. EGGLESTON,**
Dealer in Seeds and Implements, Albany, N. Y.

March, 1860.—2t

LAWTON BLACKBERRY.—Permanent, hardy, prolific, large size, and of exquisite flavor, in all climates; the original variety carefully preserved from admixture with seedlings, and the common New-Rochelle Blackberry for sale, in small or large packages, by **WILLIAM LAWTON,**
New-Rochelle, N. Y.
March, 1860.—3t

RUSSIA OR BASS MATS—Selected expressly for budding and tying. **GUNNY BAGS, TWINES, HAY ROPE, &c.,** suitable for Nurserymen and Farmers, for sale in lots to suit, by **D. W. MANWARING,** Importer,
Sept., 1859.—1y* 243 Front Street, New York.

BLOOMINGTON NURSERY, ILL.—Eighty acres. Fruit and Ornamental Trees. Root Grafts, 10,000, \$50. Wilson's Albany Strawberry, 1,000, \$10. &c., &c. *See new List.* March, 1860.—31* F. K. PHENIX.

DRAIN TILE MACHINES.

S MITH & WINEGAR'S Patent Tile Machines—decidedly the best in use. Also,

TWO SIZES OF HAND MACHINES.

These machines make more and larger Tile than any other machine in use with the same amount of power. Price \$300, \$190 and \$100. A. LA TOURETTE, Waterloo, Seneca Co., N. Y.

CONTENTS OF THIS NUMBER.

Table listing various articles and their page numbers, including Prof. Lee Tries to be Critical, Coal ashes as a Manure, Rollers and their Uses, Oil Cake for Heifers, Bacon Beetle, Care of Lambs, Early Short-horn Carrot, Sowing Plaster, Spirit of the Agricultural Press, Raising Calves, Benefits of Keeping the Surface Soil Mellow, Every Farmer should have his Workshop, Seed Corn, The Alpaca in Australia, Applying Manure to Corn, Ayshires as Milkers, Advantages of Spaying Cows, Cost of Keeping Sheep, Profits of Keeping Good Sheep, Salt and Plaster Together, Marking Sheep, Game Fowl, Surface Manuring, On Breadstuffs, Value of Marsh Muck to Light Land Farmers, Notes on the Feb. and March numbers of the Gen. Farmer, Deep plowing injurious on Prairie Soils, Feeding Bees in Spring, Feeding Beans to Milch Cows, Walking Horses, Taste of Turnips in Milk, New American Styles for Cottages and Villas.

HORTICULTURAL DEPARTMENT.

Table listing horticultural articles and their page numbers, including Topiary Work, Bones for Grape Vines, Hibiscus Rosa Sinensis, Work in the Kitchen Garden, Insect Eggs on the Leaves of Apple Trees, Lime for Fruit Trees, High Bush Cranberry, The Fig, Experimental Gardening.

LADIES' DEPARTMENT.

Table listing ladies' department articles and their page numbers, including Original Domestic Receipts.

EDITOR'S TABLE.

Table listing editor's table articles and their page numbers, including Notes on the Weather, The New Haven Agricultural Lectures, Items, Notices, &c., Inquiries and Answers.

ILLUSTRATIONS.

Table listing illustrations and their page numbers, including Improved English Cast-iron Roller, Section of Crosskill's Clodcrusher and Axle, Bacon Beetle, The Early Short-horn Carrots, Cock of the Walk—Game Fowl, Hibiscus Rosa Sinensis, The Brown Turkey Fig Tree, Fruit and Leaves of the Brown Turkey Fig Tree.

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

By JOSEPH HARRIS.

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLELY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a Rural Annual and Horticultural Directory to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants.

The address of papers can be changed at any time.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.

Address

JOSEPH HARRIS,

Publisher and Proprietor, Rochester, N. Y.

THE

GENESEE FARMER FOR 1860.

The terms of the GENESEE FARMER are: Single Subscribers, Fifty Cents a year, in advance; Five Copies for Two Dollars; Eight Copies for Three Dollars; and any larger number at the same rate. All subscriptions to commence with the year.

In addition to this reduction of one-fourth, we offer the following List of Specific Premiums as an extra inducement for our friends to form Clubs.

SPECIFIC PREMIUMS.

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the Rural Annual for 1860.

2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the Genesee Farmer and one copy of the Rural Annual, pre-paid, by mail.

3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the Farmer, or two copies of the Rural Annual and one extra copy of the Farmer.

Any larger list than twenty-four will probably take some of the Cash Premiums given below. If not, the Specific Premiums will be increased in the same proportion as the above.

APRIL CASH PREMIUMS

For the Greatest Number of Subscribers.

As some compensation to our numerous friends for their disinterested efforts in increasing the circulation of the Genesee Farmer, we offer the following List of Cash Premiums for the greatest number of subscribers sent in after the fifteenth day of January and before the fifteenth day of April. Those who took the January Premiums will be allowed to compete for the April Premiums; but in this case, and in all others, the lists sent in previous to the fifteenth of January will not be counted. The premiums will be awarded to those who send in the greatest number of subscribers between January 15 and April 15. The names of the successful competitors, together with the number of subscribers, will be announced in the May number, and the Premiums paid immediately.

1. TWENTY-FIVE DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 37½ cents each.) before the 15th day of April, 1860.

2. TWENTY DOLLARS to the person who shall send us the second highest number, as above.

3. NINETEEN DOLLARS for the third list.

4. EIGHTEEN DOLLARS for the fourth.

5. SEVENTEEN DOLLARS for the fifth.

6. SIXTEEN DOLLARS for the sixth.

7. FIFTEEN DOLLARS for the seventh.

8. FOURTEEN DOLLARS for the eighth.

9. THIRTEEN DOLLARS for the ninth.

10. TWELVE DOLLARS for the tenth.

11. ELEVEN DOLLARS for the eleventh.

12. TEN DOLLARS for the twelfth.

13. NINE DOLLARS for the thirteenth.

14. EIGHT DOLLARS for the fourteenth.

15. SEVEN DOLLARS for the fifteenth.

16. SIX DOLLARS for the sixteenth.

17. FIVE DOLLARS for the seventeenth.

18. FOUR DOLLARS for the eighteenth.

19. THREE DOLLARS for the nineteenth.

20. TWO DOLLARS for the twentieth.

21. ONE DOLLAR for the twenty-first.

Our Agents, and Competitors for the above Premiums will remember that our terms are always IN ADVANCE.

Subscription Money may be sent by mail at my risk, and you need not "register" the letters.

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR,

ROCHESTER, N. Y.

February 1, 1860.



THE
Gem See Farmer.
PRACTICAL SCIENTIFIC FARMERS OWN

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., MAY, 1860.

No. 5.

NOTES FOR THE MONTH.

THE unusual and almost unprecedented severe winter in Great Britain has materially injured the wheat in that country, and our English exchanges and private correspondence indicate that the crop this year will probably be light. In some sections of this country and parts of Canada, there is reason to fear that the wheat crop has suffered by the sudden changes of temperature during the past winter. On this account, notwithstanding there was, in this section at least, more winter wheat sown last autumn than for several years past, there is a very general impression that the wheat crop of 1860 will fall below the average, and that it will be well for farmers to sow as much spring wheat as possible.

It is not yet too late to sow spring wheat. We have known several instances where late sown spring wheat has done better than early sown—for the reason, probably, that the season of the midge was over before it was in bloom.

Unlike barley, spring wheat will succeed on a clover sod plowed up fresh. One of our Canadian correspondents, however, who has been very successful in raising spring wheat, prefers to summer-fallow for it; or, at least, to plow the land in the fall, and cultivate it in the spring. He sows from the 10th to the 15th of May; from one to one and a half bushels per acre. Unless the land is in excellent condition, two bushels is none too much seed.

Throughout the West, the Canada club is regarded as one of the best varieties of spring wheat. In Canada, the Fife is the most popular kind, and can be sown later than most varieties, and on moister soils.

INDIAN CORN.—Of this crop, little need be said. It will stand bad management as well as any other crop, but it is exceedingly grateful for good cultivation and heavy manuring. It requires a warm, dry, rich soil. The motto of the corn-planter should be “good culture.” In our experiments

with various manures on Indian corn, gypsum or plaster proved the most profitable. Ashes had little effect, though this might not be the case on other soils. Ammonia is what we need, but this can not be purchased sufficiently cheap to render its use in the majority of cases profitable. The cheapest source at present, with the exception of home manures, is Peruvian guano. If the corn is planted on a clover sod, it may be well to let the clover grow till just before planting, and then turn it under and plant immediately.

In our own experiments, the plaster was applied in the hill with the seed, at the time of planting, a little over a bushel per acre. This year, we shall try the effect of a larger quantity. The general mode is to scatter it round the plants when three or four inches high.

We have little faith in the various recommendations of soaking seed corn in solutions of ammonia, chloride of lime, copperas, etc. Soaking old, dry seeds in a solution of chloride of lime is said to facilitate the softening of the husk, and thus render germination easier. This is probably true; but that the small quantity of *any* ingredient that seed can absorb can materially help its after growth, is inconsistent with all our ideas of the nourishment and growth of plants. In the majority of experiments that have been made on this subject, it is quite probable that the result would have been just as good if the seed had been simply soaked in water alone for twenty-four or forty-eight hours. Generally, this even is unnecessary.

BARLEY.—Our climate is not well adapted for the production of the best samples of spring barley—the growing season is too short and hot. In this section, at least, the crop is becoming more and more uncertain, and many farmers have nearly abandoned its cultivation. Like wheat, it is liable to be attacked by the midge. Whether, like spring wheat, late sowing will enable it to escape this insect, we cannot say. The rule hitherto has been

to sow as early as the ground could be got in proper condition; but fair crops have been obtained when sown as late as the middle of May. Barley likes a warm, active soil; what is called "barley soils" in England being rather too light and sandy for the production of the best wheat. We have, however, seen most excellent crops on rather heavy soils, when they have been summer-fallowed and made mellow by cultivation. Barley will not succeed on sod land. In some of the northern counties of this State, they sow peas and oats together on sod land and follow them with barley the next season. They frequently sow as late as the first of June, and raise good crops. We think two bushels of seed per acre none too much. A farmer near this city thinks a barrel of salt per acre on his barley a most profitable application.

POTATOES.—The bulk of this crop will be planted before these remarks reach our readers. The majority of farmers in this section plant in hills 2½ feet apart each way, and about three sets in each hill. In this way the horse-hoe can be passed both ways between the rows, and the expense of cultivation and digging is slight. It is generally acknowledged, however, that by making the rows the same distance apart (2½ feet), and then dropping single sets in the rows, 12 to 15 inches apart, a larger crop is obtained; though it is thought not enough more to compensate for the extra labor. We find that on the sandy soils in the town of Irondequoit, near this city, where potatoes are *the* crop, leached wood-ashes are used to a considerable extent with good results. They cost about one cent a bushel, and are undoubtedly a cheap manure at that price. From fifty to one hundred bushels per acre are used. On these sandy soils, plaster, from one to two bushels per acre, is also considered a profitable manure for potatoes. It may be applied in the hill at the time of planting, or when the potatoes are up. Just before the potatoes break through the ground, a light harrow, with the teeth knocked out to straddle the rows, is passed over the ground with advantage. It breaks the crust and checks the growth of weeds.

Of all artificial manures for potatoes, we have found nothing equal to Peruvian guano, applied broadcast before planting, at the rate of 300 lbs. per acre. We have obtained an increase of 8½ bushels per acre from this quantity of guano, costing here about \$9.

PEAS.—We believe it will pay to raise peas, even where the bug is most destructive, for the purpose of feeding out early to hogs. They might be fed

out on the land while still green. This would enrich the soil; and the refuse and manure might be turned under and the land sown to wheat. When eaten early in the fall, the bug does the pea little injury. Undoubtedly it would have been better to have sown earlier; but it is not yet too late to obtain a fair crop. Peas do well on sod land. They should be sown thick for the above purpose—say three or four bushels per acre. A good crop will smother the weeds. A bushel or so of plaster per acre, sown broadcast with the seed, or soon after the peas are up, frequently produces a very marked effect.

MANGEL WURZEL.—This is one of the best roots adapted to our dry, hot climate. It contains about half as much again nutritive matter as turnips, and will produce a much heavier crop per acre; but it requires rich land and good cultivation. The soil should be warm, deep and thoroughly pulverized. It will grow on heavier land than the turnip or ruta-baga. Prepare the land this month, and sow about the first of June, in rows 2½ to 3 feet apart, and 12 inches apart in the rows. If the seed is soaked three or four days in warm water and then rolled in gypsum, it will start earlier, and the plants will be more likely to get the start of the weeds. The plants should be thinned out when about two inches high, and if possible the work should be done when the ground is moist after rain. The same remarks will apply to white and yellow sugar beets.

WHITE BEANS.—We desire to see the cultivation of the bean greatly extended in this country. Like clover, peas, and root crops, its growth *and consumption on the farm* will greatly enrich the land. At present it may pay better to sell the beans than to feed them to sheep; but if the market price should be reduced by their extended cultivation, they would still be a profitable crop for the farmer to raise for feeding. They draw lightly on the soil, and being planted in rows admit the use of the horse-hoe, so that the land can be nearly as well cleaned as by a summer fallow. There is perhaps no crop so well adapted for planting among young fruit trees as beans. There are a number of excellent varieties, but for field culture the small white bean is believed to be as profitable as any other.

Beans do well on any good corn land. The general opinion is that a light, warm, sandy or gravelly loam is best. Many think that the soil should be rather poor than otherwise, as rich land is apt to produce too much vine; there is, however, a difference of opinion on this point, probably owing

to the different signification which is attached to the terms "rich" or "poor" land. What one calls "rich," another calls "poor," land. In this case, as in most others, a "happy medium" is doubtless best.

Some prefer to plow early in the spring, and clean the land as much as possible before planting; others think it best to plow under a clover sod, flat, just before planting, say the first of June, as such land is more likely to be free from weeds. Harrow down smooth, and make the soil as fine as possible; then plant in rows 2½ feet apart and 15 inches in the rows, using 4 to 6 beans in each hill. Cover with mellow earth, not more than two inches deep. Some prefer to sow in drills; but by planting in hills, the labor of cleaning is greatly facilitated. When sown in drills with a machine, it should drop a single bean two inches apart in the drills, the rows being 2½ feet apart. If the weather is fine, plant the first week in June. Some, however, prefer to plant a week later.

FLAX.—There is perhaps no crop that can be grown, more certain in its returns for the labor bestowed, than flax. The demand for the seed, for making oil, is increasing every year. Hitherto, the growth of flax for the sake of the fibre has been a troublesome process; but a method has been found of obtaining the fibre by machinery, without first steeping it; and we understand that several mills are about to be built this year in Canada for this purpose. The soil best adapted to its growth is a rich, deep loam; stiff clays will not answer. It is indispensable that the soil be perfectly clean, and reduced to a fine tilth. If seed only is wanted, one bushel will sow an acre. For fibre, the quantity of seed sown varies from 1½ to 3 bushels per acre; the thicker it is sown the finer will be the fibre. The time for sowing is from the first of May to June. The earlier it can be sown the better will be the fibre. In Ireland, where flax is extensively grown, the usual estimate is that three acres will produce one ton of ordinary fibre, worth from \$200 to \$350 per ton. The finest quality of flax produced fetches \$550 per ton. The seed averages about 20 bushels per acre, and is worth \$1.50 per bushel.

MORE BIG PUMPKINS.—JONATHAN HARRIS, of Wayne Co., Ill., writes us that he raised, "from one seed, eight pumpkins that weighed respectively, 108½, 108, 105½, 88, 85½, 68, 62 and 45 lbs.; making, in the aggregate, 670½ lbs. from one vine." This is pretty good for Egypt. Mr. H. asks "who can beat it?"

TOP-DRESSINGS FOR WHEAT IN THE SPRING.

DR. VOELCKER reports the results of some experiments made last year on the farm of the Royal Agricultural College at Cirencester, England, with Peruvian guano, nitrate of soda, and other manures, as a top-dressing for winter wheat in the spring. The manures were all sown on the 22d of March. They were finely sifted, and mixed with about ten times their weight of fine soil and sown broadcast. A gentle rain fell the next day and washed the manures into the soil, and secured at once their uniform distribution.

The following table shows the manures used and the quantity per acre, and the amount of produce obtained :

No. of Plots.	Manures used and Quantity per acre.	Yield of Wheat per acre in bus.	Yield of Straw per acre in lbs.	Incr'se of Wh't over unmanur'd plot.	Incr'se of Str'w over unmanur'd plot.
No. 1	No Manure.....	27	1984	.... bus.	.... lbs.
2	250 lbs. Peruvian Guano.....	40 1-10	2576	13 1-10	592
3	195 lbs. Nitrate of Soda.....	38	2696	11	712
4	150 lbs. Nitrate of Soda & 168 lbs. Common Salt.....	40 6-10	2736	13 6-10	752
5	448 lbs. Proctor's Wheat Manure.....	39½	2668	12½	684
6	672 lbs. do. do.....	41 1-5	3082	17 1-5	1048
7	4 tons Chalk-Marl.....	27	1872	None.	112 dec.

The manures cost \$7.80 per acre, except the large dose of Proctor's wheat manure on Plot 6, which cost \$11.70.

The wheat was worth \$1.26 per bushel. Leaving the value of the straw out of the question, the profit from the use of the top-dressing was :

With Guano.....	\$8 70 per acre.
With Nitrate of Soda.....	6 00 "
" " and Salt.....	9 33 "
" 448 lbs. Wheat Manure.....	7 94 "
" 672 " ".....	10 16 "

Taking the four first lots, where the same amount of money was expended on each lot for manure, the nitrate of soda and salt give the best result, guano next, the wheat manure next, and the nitrate of soda, alone, the least. The extra heavy dose of wheat manure gave the largest profits, although the increase is not quite in proportion to the amount of manure; that is to say, the extra 224 lbs. on plot 6 gave an increase of about 5 bushels, while the 448 lbs. on plot 5 gave an increase of 12½ bushels. The cost of producing an extra bushel of wheat was :

With Guano.....	60 cents.
" Nitrate of Soda.....	71 "
" " and Salt.....	57 "
" 448 lbs. Wheat Manure.....	62 "
" 672 lbs. ".....	63 "

In these calculations, we have allowed nothing for any effect which the manures may produce on the next year's crop. As a general rule, the effect

of such manure the following year is very slight, especially if the land is sown with any of the cereals. On clover, the mineral manure left in the soil sometimes proves beneficial. This is in accordance with theory; and we believe agrees with the experience of farmers who use guano on the poor soils in Maryland and Virginia. On the whole, then, these results are highly favorable to top-dressing wheat with guano and other manures, affording available nitrogen at a cheap rate.

KOHL-RABI.

This plant is beginning to receive increased attention as a farm root crop, in England. It is in many respects better adapted to succeed in our dry climate than the turnip. Monro says of it: "Kohl-Rabi is the *bulb of dry summers*; heat and drouth are congenial to it, and experience has proved that this plant grows, prospers, and yields an enormous crop under circumstances wherein white turnips and *Suedes* could barely exist."

This plant became first known in 1597, and in its original state, as appears from the accompanying engraving, which is a *fac simile* of one in *Gerard's Herbal*, published in 1633, seems quite a different plant from what it does now. The contrast between this plant and the perfection to which it has now attained—as shown in our cut of the *Lute Green* Kohl-Rabi, taken from the *Journal* of the Royal Agricultural Society of England—shows what wonders may be performed in the way of improving plants, by a judicious system of cultivation and care.

In 1837, according to Mr. TOWERS, the attention of English farmers was first systematically directed to the culture of Kohl-Rabi as a field crop. In

consequence of the failure of the turnips in some of the middle and eastern counties of England, from the effects of the ravages of a caterpillar, a substitute for turnips was eagerly looked for and found in this plant, whose bulbs, at that time being raised on a stout fibrous stem, after the manner shown in

our first cut, effectually defied the grubs. The caterpillars disappearing shortly afterward, the cultivation of the turnip was resumed, and the Kohl-Rabi seems to have been generally abandoned.

In 1847, Mr. HEWITT DAVIS drew attention again to this plant; he stated that he had been very successful for some years in raising heavy crops upon poor soils, and contrasted its great value in comparison with *Suedes* and common turnips, which were nearly or quite a total failure that year in the south of England, from the effects of long-continued drouth. Since that, according to Messrs. PETER LAWSON & SON, of Edinburgh, Scotland, the culture of Kohl-Rabi has been rapidly extending, especially in Ireland. Its growth in Scotland is, however, at present very limited, from a belief that the climate is



ORIGINAL KOHL-RABI.

too severe. This is now proved to be a mistake, as it is found to be hardier than the *Suede*, and is quite unaffected by frost, even with the thermometer 10° below freezing.

It was formerly difficult to procure good seed of the Kohl-Rabi, most of that used being imported from Germany; but the Messrs. LAWSON, who are probably the largest seedmen in the world, have paid much attention to its cultivation of late years, and are now able to supply seed of the best quality and most improved varieties. It may be grown on any good turnip soil, but it has been found that

strong, heavy lands, approaching to a stiff clay, are most suitable for it. The soil is prepared in the same manner as for turnips.

To drill in the seed as for turnips would require 4 lbs. per acre; and as the seed is costly, the usual plan in England has been to sow a well prepared seed bed at the side of the field in March, and keep the bed free from weeds by hand hoeing till the

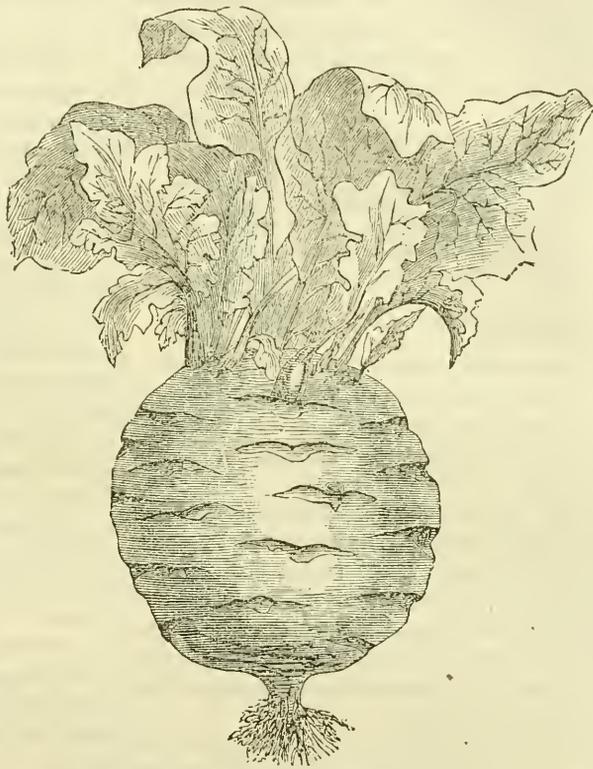
young plants have attained a size sufficient for transplanting, which is when they are six inches high. By the middle of May, they are transplanted into rows in the field, three feet apart, and with an interval of from twelve to twenty inches between each plant. If rain follows the transplanting, it cannot fail of success; but if dry weather ensues, the plants will flag some, and perhaps a few be lost, which can be replaced from the seed bed. By this method, only half a pound of seed is required per acre. In our climate, the operations of sowing and transplanting may take place a month or six weeks later, according to the exigencies of the season. It would probably cost more to transplant here than in England, where labor is cheap; but it is not after all so very expensive an operation as might be supposed, as it is found that four women will easily plant out an acre per day; and it must be borne in mind that no further hoeing or thinning out is required when the plants are transplanted — all the after cultivation

necessary being done with the horse-hoe. It is also said that the bulbs are larger and better when transplanted than when grown in drills like turnips. A little experience will soon demonstrate which plan is best adapted to this country.

The after cultivation is about the same as for turnips, and consists mainly in frequent stirring of the soil, and keeping it clear and free from weeds.

The plants arrive at maturity in England in about twenty-five weeks after being transplanted, when they are pulled and stored like turnips, the tops being first removed and given to the cattle. It must not be forgotten that these tops are larger and more valuable than those of turnips for feeding to stock, especially milch cows, in the fall, at the time when pastures are becoming bare.

A fair average crop of this plant in Scotland is 25 tons of bulbs to the acre, and about 8 tons of leaves; though 35 tons is not an uncommon yield in Ireland, and even 60 tons have been raised. The *Late Green* variety, of which we give a cut, is considered the best for general cultivation and productiveness.



LATE GREEN KOHL-RABI.

CORN NOT INJURED BY LATE SPRING FROSTS.— Last year a friend of ours in Canada had a five acre field of corn that was well up when the frost of the 10th of June came; the plants turned brown and withered from the effects of the frost, and he concluded the crop was gone, and that he would plow it up. Going into the field with him next day, we pulled up some of the plants, and on unrolling the leaves found the heart of the plant still green, and apparently uninjured. We persuaded him to let them alone for a week or two, and instead of plowing them up to run a cultivator between the rows. We afterward learned from him that, with a few exceptions, the corn all came up again, and that he harvested a very fair crop. Many instances have occurred where potatoes have been cut down by frost in the spring, but which afterward produced a good crop.

the lateral shoots, Professor BUCKMAN recommends that the central stems should be cut down first; the lateral shoots will then make rapid growth and gradually become sweet. By this simple expedient, the full benefits from the whole crop may be secured."

There can be little doubt that sugar cane grown in the comparatively cool climate of England would not contain as much sugar as that grown in this country.

Supplement to the Genesee Farmer.

GENESEE FARMER OFFICE, }
ROCHESTER, N. Y., APRIL 27, 1860. }

DEAR SIR:—Permit me to call your particular attention to our offer in regard to Half-yearly subscriptions to the *Genesee Farmer*: To all who subscribe during the month of May for the next half-volume, commencing with the July number, we will send the June number free.

Will you oblige me by telling your neighbors of this offer? We will send five copies of the *Farmer* for the half-year for one dollar, and present you with a copy of the *Rural Annual* for your trouble in getting up the club. And, in addition to this, all who subscribe by the end of May will receive the June number extra.

If you are pleased with the *Farmer*, I should feel personally indebted to you if you would endeavor to extend its circulation. Yours respectfully,

JOSEPH HARRIS.

P. S. For terms for larger clubs, Premiums, etc., see last page of the May number.

valuable than sheep manure as a general rule; but it is owing simply to the fact that the hogs eat richer food than the sheep; hen manure is worth more, as a general rule, than that of other stock kept on the farm, but this, too, is attributable to the same cause, and to the fact that the liquids and solids are voided together. The liquid portion of the excrements of all animals contains the most valuable portion of the manure, and it is too frequently allowed to run to waste; whereas in the case of poultry it is all saved, and hence this manure is of great value. But if the liquid and solid excrements were all saved, they would be just as valuable when obtained from a horse as from a hen, if the food consumed was the same. This fact can not be too often repeated. Farmers will never succeed in increasing the value of the manure heap till they obtain right views on this subject.

In England, where farmers purchase large quantities of food for feeding to animals on the farm, this fact is beginning to be appreciated. Mr. LAWES,

than whom there is no better authority, has recently published a table "showing the estimated value of the manure obtained from the consumption of one ton of different articles of food; each supposed to be of good quality of its kind." We have reduced the gross ton to our common ton of 2000 lbs., and give the price in dollars and cents. The following is the table:

Description of Food.	Estimated money value of the Manure from 1 ton of each Food.
Decorated Cotton-seed Cake,.....	\$27 86
Rape Cake,.....	21 01
Linseed Cake,.....	19 72
Malt-dust,.....	18 21
Lentils,.....	16 51
Linseed,.....	15 65
Tares,.....	15 75
Beans,.....	15 75
Peas,.....	13 38
Locust Beans,.....	4 81 (?)
Oats,.....	7 40
Wheat,.....	7 08
Indian Corn,.....	6 65
Malt,.....	6 65
Barley,.....	6 32
Clover Hay,.....	9 64
Meadow Hay,.....	6 43
Oat Straw,.....	2 90
Wheat Straw,.....	2 68
Barley Straw,.....	2 25
Potatoes,.....	1 50
Mangolds,.....	1 07
Swedish Turnips,.....	91
Common Turnips,.....	86
Carrots,.....	86

LAWES has been engaged for many years in experiments on this subject, and we have no doubt he tabe correctly states the relative value of manures obtained from the different foods; that say, if the manure obtained from the conion of a ton of meadow hay is worth \$6.43, made from a ton of clover hay is worth \$9.64, f as much again—and this is true every-

where. The estimates are based on the value of manure in England, and are undoubtedly correct; but of course the figures are only true relatively where manures of all kinds are of less value, as is the case in the newer sections of this country. In the vicinity of this city, manures are quite as high as in England, and here the estimates may be adopted without any qualification; and the same is true of a great portion of New England, and nearly, if not quite, throughout the entire length of the Atlantic slope, where the use of guano or other artificial fertilizers is profitable.

"But is it then true," we hear it asked, "that the manure made from one ton of clover hay is worth as much as that made from a ton and a half of timothy or meadow hay?" There is no doubt on this point; and it is a fact we have often mentioned. It is one reason why we so repeatedly urge the importance of an increased growth of clover as a means of enriching the soil. But in addition to this, it is also true that clover does not impoverish the soil so much as timothy or other

grasses when both are consumed on the farm. If both the clover and the timothy are sold off the farm, the clover *may* impoverish the soil as much as the timothy, though there is some doubt on this point.

It will be seen that decorticated or husked cotton-seed cake affords richer manure than any other food. Cotton-seed has been used for many years as a manure in the Southern States, with good results. Within the last few years, a process has been patented for removing the husks from the seed, so that it can be used for making oil, in the same way as linseed, rape seed, etc. The cake that is left, like the latter, is used for food or manure. This cotton-seed cake has attracted considerable attention in England, and all the experiments which have been made, so far as we have seen, indicate that it is quite as nutritious as linseed cake, while, as will be seen from the above table, it affords richer manure. According to Prof. S. W. JOHNSON, of New Haven, Ct., this cake is manufactured to a considerable extent at Providence, R. I. The cake sells for \$25 per ton. Prof. JOHNSON, from analyses which he has made of it, estimates its value as a manure at \$21.60 per ton. From the enormous quantities of cotton seed which can be obtained, and which has hitherto been thrown away, there can be no doubt that this new branch of industry will be extensively prosecuted.

It will be seen that beans and peas afford very rich manure. The remarks we have made in regard to clover will apply also to these leguminous plants as compared with the cereals, oats, barley, Indian corn, etc.; they not only afford richer manure, but their growth impoverishes the soil far less than the cereals. It will be seen that the manure obtained from a bushel of peas is worth twice as much as from a bushel of Indian corn.

Malt dust, it will be seen, affords rich manure. We do not know what is done with it at the breweries, but if it can be obtained at a reasonable rate, it might be purchased to advantage. It has long been used in England as food for stock. Some years ago, when the writer was with Mr. LAWES, at Rothamsted, a well known agriculturist and member of Parliament from one of the Eastern counties, came to examine the experiments which were then being made to test the value of malt as compared with barley as food for stock. Great efforts were at that time made to induce the Government to repeal the malt duty—for the reason, as was alleged, that malt was much more fattening than barley; and if the duty was removed, farmers could malt their barley and use it as food

for cattle on their farms. Our friend had warmly espoused the cause, and when we informed him that our experiments proved conclusively that the barley was more nutritious than the malt made from it, he exclaimed, "That cannot be. I have for years used malt-dust and found it very fattening; and if malt-dust is so good, what must the malt itself be?" This was a species of argument which might answer in the House of Commons, but which had very little weight at Rothamsted, where it had just been found that malt-dust contained three times as much nitrogen as the malt.

It will be seen that the manure from a ton of clover hay is worth as much as that made from four tons of straw; while that from one ton of oil-cake is worth as much as that from nearly nine tons of straw.

The reason why the root crops are so low down in the scale is that they contain such a large quantity of water. Leaving the water out, they afford about as rich manure as clover hay.

PORK-FAT SOWS FOR BREEDERS.

EDS. GENESEE FARMER:—In a note to my brief essay on raising pork cheap, you doubt the profitability or practicability of breeding from "pork-fat sows." As my article was neither more nor less than a few hints from the experience of JOHN SKAATS, of Alexander, I referred to him for more special information on this point. He informs me that he has successfully practised raising pigs from pork-fat sows for the last 15 years; and his experience is, "the fatter, the better." His litters have varied from 7 to 13 pigs—average 10 or 11—and two litters from the sow a year. He does not allow a sow to come in till she is a year and a half old, and finds it profitable to keep her till 5 or 6 years old. He has killed the pigs thus raised at from 6 to 10½ months old; and their dressed weight has varied from 300 to 450 lbs. An equal cross of Byfield and Suffolk is his favorite grade. This season, a sow (Byfield,) he sold to the butcher right after weaning her pigs, without fattening; her dressed weight was over 500 lbs. His swine are never allowed to get hungry, and they never learn to squeal!

‡‡ L. S. ‡‡

Attica, N. Y.

[The above facts are apparently conclusive; but we must say that so far as our experience and observation go, sows, when as fat as recommended by our correspondent, do not, as a general rule, breed well. What say our readers? EDS.]

A PRIME LOT OF FAT SHEEP.—A few weeks since, MCGRAW & BRIAN, salesmen in New York, sold a hundred Leicester sheep to different butchers for \$1,194.34, or an average of \$11.94 each. They were fed by JURIAN WINNE, near Albany, N. Y. Twenty of them weighed 157 lbs. each, and were sold at 7½ cents a lb., live weight.

EXTRACTS FROM CORRESPONDENCE.

IS IT BEST TO HILL CORN, OR NOT?—R. S. T., of Niagara, C. W., writes: "This is a question that will not be decided for some time to come, as both sides have supporters. For my own part, I put more faith in thorough working with the cultivator and hoe, and the keeping of the ground stirred and free from weeds, than in any amount of hilling up."

JNO. IRWIN, JR., of Coshocton Co., Ohio, says his experience is in favor of hilling corn, and that it is best to plant corn so that it can be plowed both ways—say in squares 3 to 4 feet apart. He thinks too many stalks are usually allowed to grow in a hill, and would not allow more than 3 or 4 stalks to remain in each at the time of thinning out.

C. INMAN, of Mich., says that if the ground is examined after plowing near corn, it will be found to be full of small roots, which have been cut off from the plants; and which, had the surface only been stirred, would have remained to assist the plant in obtaining nourishment from the soil. Therefore he thinks hilling injurious, and would only stir the surface sufficiently to admit moisture and keep down the weeds.

WM. RENO, of Lawrence Co., Pa., says hilling corn can only be advocated on very heavy soils, or such as are low and swampy, and have an excess of moisture. By the last, or big hilling, as it is commonly termed, the best and loose part of the soil is piled up around the stalks, and nothing but the poor hard pan or sub-soil left to supply the roots with nourishment, at the very time when the plant needs all it can get to perfect the development of the ear; and when refreshing showers come, these "big hills" turn all the water off into the furrows, out of the reach of doing any benefit to the plants, at the time they most need it.

LONGEVITY OF THE HORSE.—A. B., of Bayfield, C. W., asks very pertinently if the age to which any particular breed of animals, especially horses, will live to and retain their usefulness unimpaired, is not a matter of some importance and worthy the attention of breeders? He thinks that in raising horses, animals should be selected for breeding whose ancestors have been long-lived and which have themselves arrived at full maturity, and therefore likely to produce healthy offspring. He says there is no reason why, by judicious breeding and care, the horse should not be able to retain his vigor and usefulness to the age of fifty years. This is perhaps expecting too much, but the question, as he says, is worthy of consideration.

WEATHER AND CROPS IN IOWA.—F. H. W., writing from Prairie Ridge, Iowa, March 28th, says: "The past winter we have had some colder days than usual—thermometer 20 to 30 degrees below zero; but on the whole, we have had the pleasantest winter I have yet experienced. We have been plowing for the past two weeks, and sowing for 10 days, and if the weather continues fine, shall be preparing our corn ground early next month. This is quite a wheat-growing section—as much as 150 acres on some farms being devoted to wheat, and from 20 to 60 acres to corn. We have some cattle and horses, and but few sheep. Our fences are mostly what are called Shanghai—that is, post and board, with the two bottom boards left out; they will keep out the larger stock, but not sheep or hogs. We raise considerable of the latter, and turn our corn into pork, but have to keep the hogs confined during the growing season of the crops."

HOW TO MAKE SWINE PROFITABLE.—H. W., of Chatham, C. W., thinks it a bad practice to keep hogs over winter. He keeps over only the breeding sows, which bring the first litter in March. The young pigs, when two or three weeks old, will begin to eat, and can have a separate apartment from the sow, where they can go in at leisure, and be fed milk, and a little meal. They are weaned at eight weeks old, kept well fed, and allowed the range of a small clover pasture convenient to the pen. After harvest, they have the run of the stubbles; as soon as they have gleaned these they are at once shut up and fattened on chopped corn and barley, mixed with boiled potatoes; and when killed, at from 7 to 8 months old, they average from 200 to 250 lbs. His pigs are a cross between the Byfield and Suffolk. Those pigs that come in the fall, can be allowed to run with the sow till three weeks old, and then killed for roasters.

LARGE GOOSEBERRY BUSH.—W. M. BEAUCHAMP, of Skaneateles, N. Y., sends us the measurement of a gooseberry bush in his garden, viz: "Diameter, 9 feet one way, and 10 feet 2 inches the other; height, 4 feet 6 inches. It produces generally over a bushel of gooseberries each year. The birds patronize it largely as a place for building their nests in, and sometimes six broods of young are raised in it in a single season."

CHINESE SUGAR CANE.—B. F. B., of Pughtown, Pa., writes: "This crop did not ripen well last year. I find little or no difference in the product of syrup from the ripe or unripe cane, provided the head is fully developed; and a little frost does not injure it."

SPIRIT OF THE AGRICULTURAL PRESS.

CHILI POTATO.—Mr. J. D. LADD, in the *Ohio Cultivator*, gives an account of an experiment in growing these potatoes. He raised 78 bushels from $2\frac{1}{2}$ bushels of seed, on about one-fifth of an acre. They were cut into sets containing one or two eyes each, and planted in the same way as ordinary potatoes, and very few small ones were found at harvesting. He says "he is satisfied they possess a reproductive vigor which most of our common varieties have lost. They are not only prolific, but very hardy. When dug, but two were found that had any signs of decay about them, and they had been bruised and torn by a horse running across the patch. They are not an attractive looking potato, but the inside is white, dry, and of a pleasant flavor"

THICK VS. THIN SEEDING.—JOHN JOHNSTON, in the *Rural American*, says a man in his employ once sowed a part of a field with clover seed at the rate of 24 quarts per acre. The result was that the clover on that portion never got taller than the natural white clover, and was too short to cut. He finds 12 lbs. of clover seed per acre quite enough. Half a bushel of timothy seed to the acre will give a better quality of hay, but six quarts will give a larger quantity. He vibrated for several years between sowing one and three bushels of wheat to the acre, but settled down at $1\frac{1}{2}$ bushels, and believes this quantity will give the greatest yield, although when sown at the rate of 2 to $2\frac{1}{2}$ bushels per acre the wheat ripens a few days earlier.

TIME OF PLANTING CORN.—The *Homestead*, (Ct.) says: "From the observation and experience of the past six years, we think that the majority of our farmers plant corn quite too early. A warm week in May tempts them to early sowing, and the seed comes up, but it is liable to be surfeited with water or cut off by late frosts. Almost every farmer has the experience of planting his corn over again, and thus tens of thousands of dollars are uselessly thrown away. A much better plan is not to plant till the last of May or the first week of June. One of the best farmers of that State plants on the 6th of June, and gets his crop well matured, and to yield near seventy bushels per acre."

CORN IN STUMPY FIELDS.—A correspondent of the *Ohio Valley Farmer* advises farmers to leave a sufficient space between a stump and a hill of corn or potatoes to enable a horse to steer clear round the stump without treading on the plants. He takes care to keep the ground clean and free from weeds round the stump, by means of a two-pronged hoe.

ALSIKE CLOVER.—A correspondent of the *Canadian Agriculturist* who has grown this clover in Canada, gives it a decided preference over the common red clover, for the following reasons: It will make better and finer hay, and yield a larger weight per acre. It is not so liable to be winter killed or thrown out by spring frosts. Much was said in England, some years ago, in regard to this clover, which originated in the district of Alsike, in Sweden, but latterly we have heard little in regard to it. It is said to be used with most advantage on cold, heavy soils. Have any of our readers had any experience with it?

COWS CAN NOT HOLD BACK THEIR MILK.—Dr. DADD, in the *Stock Journal*, says a cow cannot exercise any control over her lacteal organs, and gives this as the reason: The muscular tissues which compose the parts directly in the region of the lacteal duct, or milk channel, are *involuntary* muscles. Were it not so, any cow might, by *voluntary* relaxation of the muscles which guard the outlet of the mammary gland, evacuate at any time her own milk, and thus defraud her owner.

THE ONION MAGGOT.—The *Boston Cultivator* says Mr. D. FISHER, of N. H., succeeded last year in raising a good crop, having had his onions destroyed by maggots for a number of years previously. His plan was to place on each onion bed three bowls about half filled with sweetened water, as soon as the onions were an inch or two high. This attracted the flies, and each morning the water was cleared of the insects caught in it, and a little fresh water added.

TIMOTHY ON THE PRAIRIES.—A writer in the *Rockford Register* asserts that prairie soils are not adapted to the growth of timothy; that he has had less success with it than with any other grass he has tried. He thinks the severe drouths of summer on these dry, porous soils, and the prevalence of the grub-worm, prove too much for the timothy, and he recommends the growing of clover instead.

WHEAT AT THE SOUTH.—The *Valley Farmer* states that all the late sown wheat in Alabama, East Tennessee and Southern Kentucky, has suffered severely from the frosts of last December. The early sown wheat, however, is looking well, and gives promise of a fair crop.

OATS SOWN WITH CARROTS.—The *Working Farmer* says oats may be sown thinly on carrot ground before drilling in the carrot seed, and will thus keep down the weeds, and can be cut for fodder as soon as the carrots require thinning out.

NOTES ON THE APRIL NUMBER OF THE GENESEE FARMER.

BONES AS A FERTILIZER.—The first article in the April number is a discussion on "Bones as a Fertilizer," or rather, on the amount of phosphate of lime in bones. The Editor and Dr. LEE do not seem to be exactly agreed upon this point. In a scientific or chemical point of view, it might be a matter of some consequence to know the exact amount of phosphate of lime in a given amount of "dry bones," if this amount, like the constituents of carbonate of ammonia, and many other chemical combinations, was in all cases precisely the same. But bones of different animals, and those of the same animals of different ages, vary somewhat in their chemical combinations. Therefore, it is not one of those cases which should excite much warmth of discussion; for, practically, a few pounds, more or less, of phosphate of lime in a given quantity of bones will not make a very material difference with the farmer. The great misfortune, with too large a portion of the American farmers, is an entire neglect of making use of the bones within their reach, whether they contain 42 lbs. or 52 lbs. of phosphate of lime. However, all such, and similar discussions, will eventuate in good; for farmers need "line upon line," not only upon the value of bone, but many other waste manures that have been too much overlooked by them.]

ROLLERS AND THEIR USES.—It is rather too late to expend much ink in proving the great value of the farm-roller, in preparing the ground for sowing grain—especially if the soil is clayey or lumpy. But, Messrs. Editors, does it not require more power to draw or turn a roller like the engraving you give us, than it would if the shafts were as low down as the gudgeons? that is, having the draught like that of a sled, instead of having it up as high as the backs of the horses and oxen.*

SALT AND PLASTER TOGETHER.—J. N. H. seems to have made a slight mistake in saying that I "advocated the use of plaster for Timothy;" for I have seldom known any good to result from the use of it on the narrow-leaved grasses. But where it has been applied to such grasses, clover has frequently been known to follow, giving, with the other grasses, an "A. No. 1" quality of hay. However, I have no doubt but the occasional application of a few bushels of salt per acre, with the plaster, would be more useful, on many soils, than the plaster alone. But circumstances alter cases. J. N. H. lives near the Onondaga Salt Springs; of course he can procure salt cheaply. Our salt comes mostly from Liverpool and Turks' Island, and after being landed in Boston, it comes 80 miles per railroad before we can use it. Whether it would pay to use it here for manure, has never been fairly tested.

SURFACE MANURING has been a subject for discussion ever since I can remember; and, judging from the practice of farmers in applying their manures, I do not see any probability of the question ever being settled. There are a great many contingencies connected with the subject: difference in seasons, soils, manures—whether green or rotted—depth of plowing, etc., etc. Perhaps it might be well for farmers to experiment more carefully

in the manner of applying their manure to the land for the corn, potato, and grain crops. One year's trial would hardly settle the question definitely: the results might prove very different in a very wet season from those of a very dry one.

BREADSTUFFS.—Most people in this section of the country prefer good wheaten bread to that of any other kind; and they will never go back to "rye and Indian" just so long as the wheaten is within their reach. Though, in all probability, it would be better to use a greater variety of the cereals—if not made into bread; there are numerous other ways in which they can be worked, and made into nutritious and palatable food. But, after all, "fashion and taste" will regulate these matters; at least till such times as flour becomes a vastly dearer breadstuff than corn, rye, oats, barley, and rice.

DEEP PLOWING INJURIOUS TO PRAIRIE SOILS.—And so it is to some others; but as a general rule, we think there is more injury sustained by too shallow, than by too deep plowing. But to be certain he is right, the farmer, like Mr. TURNER, should experiment upon his own soils; say, plowing a strip four inches deep, another six, and so on, till the last strip has been plowed twelve inches deep. Manure alike; plant the several strips with corn or potatoes—manuring alike. At harvest, carefully note the result. Next year, grain and grass seeds; carefully note the differences, if any. Third and fourth year in grass—by which time something like a correct judgment can be formed as to the most suitable depth at which such soil should be plowed. If the four inch plowed land gave as good crops through the course, it would be folly to plow twelve inches deep; or perhaps the crops might be so increased, as to more than pay for the increased expense of the deep plowing. This is a matter worthy a fair trial.

TOPIARY.—That was a new word to me; so I looked into "Webster's Unabridged," for a definition, and found it meant "shaped by cutting." So that the shearing of an evergreen, so as to resemble "a bird, with a top-knot and a long, sweeping tail, standing on one leg on the top of a round-headed club," is "topiary work." Thanks to you, Mr. Editor and WEBSTER, for I know a thing or two more to-day than I did yesterday. But whether this "topiary work"—this shaping of trees into the form of "birds, beasts and fishes," is in good taste or not, you and Mr. SMITH may discuss to your heart's content. I shall not enter into the lists, pro or con.

BONES FOR GRAPE VINES.—Bones are a durable and valuable manure for grape vines, trees, and most of our cultivated crops. For several years past, I have used some three cart loads of horn-piths, in the hill, for my potatoes—placing one pith in each hill at the time of planting. They will last a dozen or more years, and the longer they are used for this purpose, the better. R. H. says "he has seen the fibrous roots cling to the bones, and penetrate into the pores as though there were something in the bones they were fond of." When digging potatoes, I find the piths completely enveloped by the fibrous roots of the potato plants. A horn-pith will produce as great a growth as a shovel full of dung to the hill; and the potatoes are not as liable to rot as are those dunged in the hill.

* Perhaps it does; but when you have shafts you can not very well have them placed otherwise than in the cut.—Eds.



THE PEACOCK.

The most gorgeous, showy, and magnificent of all the feathered tribe, is the peacock. No object can be more beautiful—exhibiting in its plumage all the most vivid colors, blue, yellow, green, etc., disposed in almost artificial order, as if merely to please the eye of the beholder. But however beautiful may be the outward form of this gaudy bird, its disposition is of a very different character from its plumage. It is said to “have the plumage of an angel, the voice of a devil, and the stomach of a thief.” Although destructive in the garden, vindictive and quarrelsome among other poultry, without either the merit of bravery or the energy of defence—yet, after all, we like them: they make such a beautiful show among the poultry, and add to the infinite and delightful variety of animated creatures, with which a kind Providence has blessed our vision. Exclusive of the consideration of ornament to the mansion, the peacock is useful for the destruction of all kinds of reptiles; but at the same time, some are said to be vicious, and apt to destroy young chicks and ducklings, if suffered to come within their reach—on account of which, they are discarded by many.

On visiting our poultry-yard on a bright, sunny morning in March, we found several of the male birds in “full glory,” exhibiting their splendid trains and showy attitudes. O! a gay gallant is the peacock, as he struts about with his mates in the morning sun, first one side, then the other; proud of his small head, covered with a crest of feathers; proud of his bright, beautiful coat; his back and wings of a light ash color, mingled with black; his head, neck and breast of a greenish-blue, with a gloss which in the sunshine appears exceedingly brilliant; his eyes set between two stripes of white; the feathers of his tail of a changeable mixture of green, blue, purple and gold; his sharp eyes looking about as if he courted praise, and felt that he deserved it. Proudly indeed he moves along, as though he were the king of birds; proudly

he extends that glittering train of his, brightly jeweled, as it seems, in the glory of the sunshine—all bright and gay, gleaming with its blue-black disks and circles of gold. But he is only beautiful to the eye. When the train is up, nothing appears of the bird but its head and neck; but this would not be the case were those long feathers fixed only in the rump, as may be seen by the turkey-cock when in training attitude. By a strong muscular vibration, these birds can make the shafts of their feathers clatter like the rattling of Venetian blinds, when suddenly drawn up with the cord. They then trample very quick with their feet, and run backward toward the females.

Pea-fowl, on the score of profit, are not worth attention; but they may be made useful to keep watch, as they will roost on the top of a barn, or any elevated place, and from it they will sound the alarm by issuing their loud and piercing cry on the approach of any stranger or enemy, taking the place of the watch-dog. We have found them tolerable good barometers, giving notice, by their loud, harsh screams, of an approaching storm.

We have said on the score of profit, pea-fowl were not worth attention; but we have found them delicious food, when well fattened, and not a year old. Pea-hens were considered a great luxury on the tables of the Romans.

The peacock is supposed to have been originally a native of India; but they have long been introduced into Europe and this country as ornaments to the mansions of gentlemen farmers. It is said to be at present found in a state of freedom upon the islands of Java and Ceylon. It is asserted by ancient writers, that the first peacock was honored with a public exhibition at Athens. The rumor of the arrival spread all over Greece; from distant parts the rich and the noble took their journey to the classical city, to pay handsomely to be spectators of that beautiful phenomenon and wonderful paragon of the feathered race. Going to look at the peacock was not only an expensive, but an aristocratical entertainment.

C. N. BEMENT.

Springside, March, 1850.

POTATOES—THE PRINCE ALBERT, &c.—Much has been said within a year or two past about this potato. Can you, or some of your correspondents, tell me if it is not identical with the *Gilliflower*? The latter potato is, and has been, very common in the Boston market—selling from 50 to 60 cents per bushel, and is regarded as a *second-rate* potato; but it yields well, and does not rot. It is a first-rate baking variety, and is valuable for stock. The *Prince Albert* has been selling at a high figure in this vicinity. I have cultivated both varieties, and think them synonymous. The *Davis' Seedling* formerly sold as high as \$1.75 per bushel; but it is now abundant at 40 to 50 cents per bushel. This is a very large, red potato—can hardly be called first-rate; it has not sustained its pristine reputation. The *Jackson White*, a potato that originated in Maine, is the most popular potato in the Boston market and vicinity. The *Jackson* is an early potato, yields well, and is free from rot. When cooked, few varieties can equal it; but it must not be boiled *too much*, as from its mealy propensity it is apt to drop in pieces.—D. CURTIS NYE, *Lexington, Mass.*

POTATOES AND CORN.

EDS. GENESEE FARMER:—In the February number of the *Genesee Farmer*, I noticed an article in regard to planting potatoes with corn, and intended to elicit the opinion of your readers; and as I have been a reader and subscriber to the *Farmer* for a number of years, I venture to send you this communication to be used as you see fit.

Some few years since, when the potato rot prevailed in this section to an alarming extent, various modes of obviating the disease were resorted to, and among others the following, which, as far as my experience and practice goes, is as follows: After fixing a piece of as dry ground as convenient, the same way as for corn, as early in the spring as it will answer, I then plant the potatoes and corn in the same rows, in alternate hills of about two feet apart, and the rows about three feet and a half apart, the corn shading the potatoes, and protecting them from the hot rays of the sun—which, in my opinion, in a wet season, is one cause of their rotting. For, in order to satisfy myself, I planted two separate pieces of ground, side by side, of a sandy loam, of the same kind in all respects—one piece with corn and potatoes as above, the other with potatoes alone.

The result was that the latter were about one-quarter rotten, the former with very few rotten ones among them—tending them in all respects alike as to potatoes, using no plaster or ashes except on the corn.

In this way very heavy crops may be raised, insuring a good crop of potatoes and a middling one of corn, with but very little extra trouble.

The above plan has been pursued by many in years past, and as far as I have learned, with perfect success. Care should be taken to plant potatoes on none other than the driest ground, not very rich, plowing it once in the fall.

As to hoeing them, in the seasons that they have rotted much, I have observed that a conical-shaped hill was the best. Plant none but the fairest ones, and often shift the seed.

By following the above rules, I have invariably had good potatoes, not having lost but a few since the commencement of the practice.

The only serious objection I have to the foregoing plan is, that it precludes the possibility of plowing the crop both ways, which is very desirable, as it saves much labor.

H. H. M.

Lemon, Wyoming Co., Pa., April, 1860.

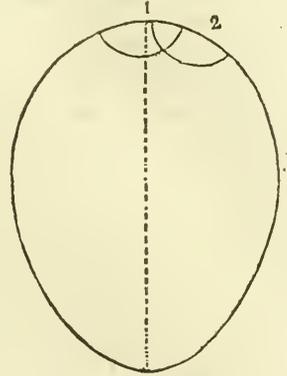
HOW TO DETECT THE SEX IN DOMESTIC FOWLS' EGGS.

In my youth, about fifty years ago, I had the privilege of keeping fowls, and about that time I was given to understand that it was possible to foretell the sex in the egg, but could find no person who could instruct me how to do so.]

After a short lapse of time, I determined to unravel this mysterious subject myself, if there was a possibility so to do. I began examining eggs, classing them according to the difference I found in the formation of each, marking each class, and putting them under hens as soon as opportunity offered; when, in less than twelve months; I was fully convinced that I had discovered either a method or the method of foretelling the sex in

the egg by ocular demonstration in the chickens produced.

At the large end of the egg there is a circular space or cavity containing air, which country folks call the "crown" of the egg; its proper name I know not. When you examine the egg, hold it, the large end uppermost, before a candle or gaslight, and in looking through it you will observe a dark circular mark something similar to the moon when partially eclipsed. This dark circular mark is the space filled with air, or "the crown" of the egg, and is to be found in all eggs, situated either in the centre or on the side of the perpendicular dotted line. (See the diagram.)



1. Centre-crown, male.
2. Side-crown, female.

My method of examining the egg is as follows: I make use of the thumb and fore finger of my left hand as two points, placing the small end of the egg on my thumb, my forefinger covering the large end of it, and as near the centre of the end as possible. I then place the egg in this position steadily before a candle and gently turn it around: if the crown be in the centre it will be scarcely visible, the forefinger nearly covering it. On the contrary, if the crown be on the side (No. 2) you will only see it on one side of the egg as you turn it around.—RICHD. SMITH, in the *Cottage Gardener*.

BREEDING AND RAISING FARM STOCK.

EDS. GENESEE FARMER:—In my letter to you on the subject of breeding and rearing farm stock, published in your March number, I said that "it was a subject of vast importance to the farmers of the State of New York." I should have said to the farmers of these United States, as I am not a sectional man, and the whole country is deeply interested in the subject. Also, that I "cut all corn stalks, straw and hay, if not of first quality." I did not intend to say that I never cut such hay; as I often do, and prefer such to any other always, whether cut or not. My intention was to say, that to give an occasional feeding of hay of first quality, uncut, was beneficial as a change, which will be appreciated by the animals; as also a feeding of straw or corn-stalks, thrown into the yard on a fine clear day in winter, when it is clean and frozen hard. With what relish animals will eat nice stalks at such times, all farmers will bear witness—especially if the day be moderately warm. And with what perfect enjoyment the animals will ruminate over them about mid-day, with a winter's sun shining brightly upon their well-fed bodies. Then the farmer can walk through his yards and view his stock with delight, especially if they have had good care and feeding in their winter quarters.

Since writing my communication for your March

number, a friend of mine called on me for a social visit; and in his conversation he told me that (in accordance with my suggestion to him that Indian meal was the best food for dairy cows,) he had found, on trial last spring, that it was so; and so easily fed, too, that he was highly pleased with the experiment. As this is the season to try it, I would suggest that persons interested in the dairy department try this the spring, and be sure and have the grain ground fine: as an old farmer said to me to-day, "Make flour of your grain, then one bushel is worth two, as ordinarily ground for feeding purposes"—which is my motto for stock feeding. Now, Messrs. Editors, the wintering stock is not so much of a knack, after all, as the getting them from grass to hay, or from hay to grass; and as the former has been done for the winter just past, I will say nothing about it at this time, but will give you a little of experience and some observation on the latter, as that will need immediate attention; and as many farmers are in the habit of selling all the grain they can—considering that it is lost, or nearly so, if fed to neat cattle—I will relate a saying of an old farmer; that is, "That a bushel of corn-meal fed to an animal, when being turned from hay to grass, is worth three dollars." Now, that may seem too much, and perhaps it is; but first let us look at it in this wise: an animal fed a quart a day, in the month of May, with what hay they will eat at night in the stable, and turned to grass days, he says will gain 50 lbs.; whereas, if turned to pasture alone, will lose 50 lbs. thereby—making a difference of 100 lbs. in the month. In an experiment made three years ago this spring, with a pair of yearling steers, and fed but about 20 days, one quart each, they gained in the month of May 105 lbs.—which would make the meal fed as valuable as stated by the farmer just quoted.

I have also found, by other experiments, that there is a great difference in the manner of getting animals to grass. When turned out early, with little or no other feed, they fall away greatly; on the contrary, if fed all the good hay they will eat, night and morning, with a judicious feeding of meal of some kind, (and I prefer mixed feed—that is, mixing the different grains together before they are ground—to any one variety,) they will soon begin to gain finely by such a course, and carry their extra weights through the season. In an experiment now being conducted, I have a cow that has, since the first of December last, been quietly laying on her two pounds per day (or nearly so), and her feed has been only moderate, as I am no advocate for forcing, but simply good fair keeping and care; then, with good animals, we are sure of a fair remuneration for care and feeding.

I would that what I have already written could reach the eye of every farmer in these United States; and that each one would set himself about making at least one experiment in the care of farm stock, and then publish it, whether successful or not, with all the particulars, for the benefit of his fellow-laborers in the art of breeding and feeding farm stock of all kinds. What a fund of knowledge might thus be obtained, and how easily disseminated!

I have said nothing thus far of breeds, or races of farm stock, preferring to let each judge for himself; knowing, that when farmers set themselves

to ascertain by actual experiment the growth of an animal, or their animals, they will then learn which is best for them—well knowing, that one breed is not fitted for every farm and purpose so perfectly as to exclude all others. In a future number I may give my experience with the different breeds, and the one I prefer, with the reasons for such preference.

J. TALCOTT.

Rome, N. Y., March, 1860.

SHALL AGRICULTURE BE TAUGHT IN OUR COMMON SCHOOLS?

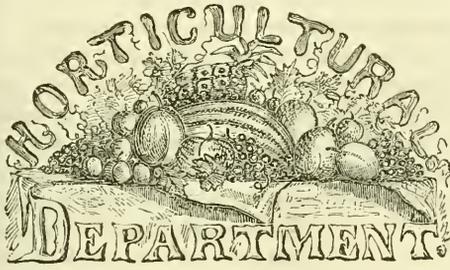
EDS. GENESEE FARMER:—The above question is one of no trifling import, and one which needs more than a passing notice. The farmer has been called "the mud-sill of society," which is in part true; for he is emphatically the foundation of all society, and all enterprise. And this is far from admitting that his position in society is of necessity a menial or degrading one, or that he is, as has been too often supposed by those who call themselves the "upper ten," the "filth and sediment of society." The "good time is coming," yea, has already come, when tilling the soil will no longer be looked upon as a degrading, plodding occupation, unworthy the notice of any one who has wit enough to enter the *professions*, or study a *little science*.

It is true, Messrs. Editors, that the tiller of the soil *has been, and still is*, too ignorant of the science of his profession.

If the "time of this ignorance has been winked at," knowledge and light are now demanded. The importance of educating farmers' sons has often been advocated by abler pens and sounder heads than mine. And yet, I look upon the subject as one far from being exhausted or worn "threadbare." And if it is so important for farmers' *sons* to have an agricultural education, why is it not equally important to educate those who are to become their wives—the mothers of their children? What science—what profession—what calling in life, or of all combined, needs so extensive, so thorough a knowledge of the great laws of nature—the principles which govern and control all his labors—as the farmer? It is true he may plod on in the "old beaten paths," without a scientific education.

But can he give an *intelligent* reason for the agricultural hope that is within him? Can he turn to a profitable account the resources within his reach?—the elements which are waiting, like the philosopher's stone, his touch to turn all his lead into gold.

Assuming it, then, as a fact, that the farmer, to attain and retain the high and honorable position which he is *destined* to occupy, must be more highly refined and educated, the question is readily suggested: How is a state of things so commendable, so desirable, so absolutely indispensable, to be brought about? I would answer: First, negatively; not by any sudden, mysterious, or unexplainable act of legerdemain; nor is it to be done by supineness or inactivity; nor yet, is it to be done by the old foggy cry, "Don't go too fast—beware of new-fangled notions." But, secondly, it *can be done* by beginning at the right place, in the right way, and at the right time; which, if this meets with approbation, may become the subject of another article.



WORK IN THE GARDEN.

MAY is the best time for sowing the bulk of seeds for the main crop in the garden. The soil has then become sufficiently warmed to ensure the quick germination of the seed, and a rapid development of vegetation, on which much of our success in gardening depends.

Sow the seeds of those plants we made mention of in our April number, if not already done.

CARROTS.—The bulk of this crop may now be sown. Select a rich and rather light soil; dig deep, make the ground as mellow as possible, and sow in rows 15 inches apart. Do not cover the seeds more than one or two inches deep, and press the soil to them by treading on a board. The *Early Short-horn* is the best kind for table use. This variety is delicious even when quite young, so that the seed can be sown quite thick, and the young carrots pulled out in thinning can be used for the table.

SALSIFY.—Sometimes known as *Vegetable Oyster*, requires much the same soil and treatment as carrots, and is usually sown in drills one foot apart, and afterward thinned out to 6 inches apart in the rows.

BEANS.—Plant dwarf beans in rows two feet apart, with an interval of six inches between each bean. It is well not to sow all at the same time, but plant a few rows every ten days, so as to keep up a succession during the summer.

CUCUMBERS AND MELONS.—Now is the time to get these planted. Almost every grower has a method of procedure in regard to the best manner of "fixing" melon beds, suitable to his own soil and climate; and it would occupy more space than we can spare were we to go into details. The main point is to get the ground warm and rich, and keep it moderately moist. Make the hills at least four feet apart. A mixture of soot and wood ashes sprinkled over the young plants on a dewy morning is very useful to assist in keeping away the striped bug. Leave but three or four vines in a hill, and as soon as the rough leaves appear nip off the terminal buds, so as to make the plants branch out.

Keep the soil well stirred with a small hoe. Melons and cucumbers should not be grown very near each other, if it is wanted to save the seed.

SQUASHES.—These require a rich soil and plenty of room. They are usually grown on broad, flat hills, raised an inch or two above the level of the ground, and placed from six to eight feet apart, each way. Plant six or eight seeds in each, and afterward leave only the three strongest to grow. If several varieties are grown, they should not be placed near each other, unless it is not designed to save any of their seed.

CABBAGE.—Seed of the late varieties, such as the *Flat Dutch*, *Savoy*, and *Drunthead*, may now be sown in a warm border, to get some plants for setting out in July. Transplant the early kinds, and also cauliflower. They require a strong soil, and will bear heavy manuring. The distance between the plants when set out varies from $1\frac{1}{2}$ to 3 feet. A moist, cloudy day is the best time for transplanting, and it is well to dip the roots before planting in a composition of black mould, and a little soot, made into thin-mud with the assistance of liquid manure.

TOMATOES.—Such as are intended to be transplanted should be set out now, first dipping the roots in the same mixture recommended for cabbage plants.

EGG PLANTS.—These are usually grown in a hot-bed, and transplanted into a warm border about the end of May. Plant singly in hills two feet apart, and shade for several days, giving plenty of water; afterward draw earth to the plants and keep the ground very clean.

CELERY.—It is perhaps too late this month to sow celery; but if any were sown last month, they may be transplanted into an open bed and placed three or four inches apart, to stock and harden, preparatory to their final removal into the trenches.

SWEET CORN.—Plant in hills three feet apart; when up, allow only three plants in each hill to grow. Hoe deep and frequently, and cut off the side shoots and suckers. It is well to have a succession, by planting some every two weeks in vacant spaces, where some of the early salads have been grown.

THE FLOWER GARDEN.—In this country, flowers do not receive that attention from our rural population that they are entitled to. Most people seem to be contented to keep on growing the old-fashioned hollyhocks, cabbage roses, marigolds, etc. which seem little better than common weeds beside their more beautiful congeners seen in the gardens of those who will take the trouble to

procure seeds of the new and improved varieties, now becoming plentiful in the hands of good seedsmen.

Now is the time to sow the seeds of annuals, and plant out verbenas, phloxes, and other more tender plants from the green-house to the open air. Keep the garden neat and free from weeds, and stir the flower beds frequently with a small hoe or fork.

The popularity which this fruit has obtained, also indicates the need and wants of the community.

The Grape is destined to become one of the most important and useful fruits of this country; and something superior in quality and earlier in ripening than the commonly disseminated *Isabella* and *Catawba*, has long been demanded—though we do not wish to be understood as in any way disparaging

the valuable qualities of these old standard sorts; their merits and demerits are well known.

The accompanying engraving is an exact copy taken from a bunch of the *Delaware* last fall, and conveys a good idea of the size and shape of this fruit.

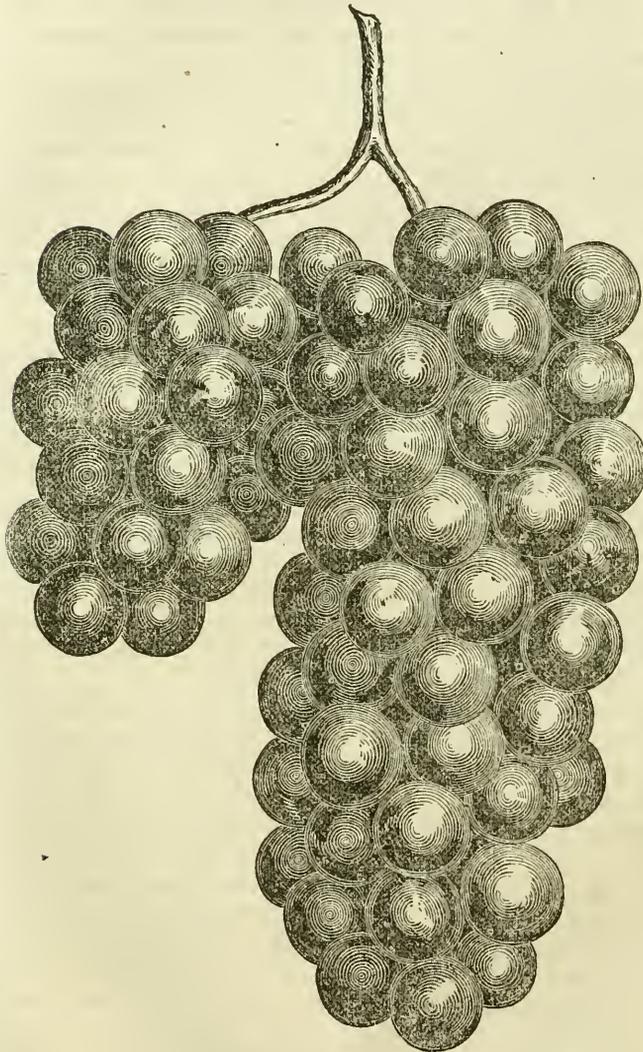
The following description we copy from DOWNING'S *Fruits and Fruit Trees of America*, and is perhaps as concise and truthful as may be written:

"Bunches small, compact, and generally shouldered. Berries smallish; round when not compressed. Skin thin; of a beautiful light red or flesh color; very translucent, passing to wine color by long keeping. It is without hardness or acidity in its pulp; exceedingly sweet, but sprightly, vinous and aromatic, and is well characterized by Mr. PHINX as our highest flavored and most delicious hardy grape.

"It is a vigorous grower, an early and profuse bearer, and probably more hardy than *Isabella* or *Catawba*. In the garden of Mr. THOMSON (Delaware, O.), where all other kinds were nearly destroyed by the unprecedented cold of '55 and '56, this alone was uninjured.

"It ripens nearly or quite three weeks before *Isabella*. Its bunches and berries are very greatly increased in size by high culture."

The coming season will probably afford much experience with this grape in various parts of the country; and we shall endeavor to place before our readers everything of interest that shall be elicited in respect to it, and also the other new and valuable varieties of grapes which are now attracting so much attention in all parts of the country.



THE DELAWARE GRAPE.

MANY facts and opinions have, from time to time, been laid before our readers in reference to this Grape, and almost universally they have been in its favor; seldom has a new fruit so quickly and so generally been adopted as a public favorite, and we have much reason to believe that in this case confidence is not misplaced.

GERMINATION OF SEED.

It is not uncommon to hear complaints made of the failure of seeds to grow; and much blame is then thrown upon the seedsman from whom the seeds were purchased. This is often unjustly done, although it must be acknowledged that in many cases the fault lies with them in not using sufficient discrimination in selecting the seeds. We find in the *Gardener's Chronicle* a translation of an article published in the *Journal de la Société Impériale d'Horticulture*, written by M. CHARLES APPELIUS, an extensive seedsman at Erfurt, which shows how far the tests that are usually applied to ascertain the vitality of seeds can be depended upon. He tells us the first requisite to success in growing plants is to use seeds capable of germinating. We quote:

"Now the goodness of a sample can only be proved by the number of seeds which, out of a given quantity, grow and become plants. Yet too often its vitality is determined by the specific weight or density of the seeds. This method is no doubt good, but not infallible; besides, the weight of the same kind of seed may vary from year to year, according to the manner in which it is grown; it may even vary upon the same plant; it does so particularly in an ear of Indian corn, the grains situated in the center of that plant having a greater specific gravity than those above or below."

Experiments tried by Dr. HELLRIEGEL have proved that the best formed seeds have the greatest specific gravity, and that the heaviest seeds of any particular plant produce the strongest plants.

"Every one knows that in order to ascertain the specific gravity of seeds quickly and easily, it is the custom to throw them into water, and to collect as the best those which, from their greater weight, fall to the bottom, while those that float are rejected as bad. However, too much confidence must not be placed in this method of proving seed by water. It may frequently mislead, particularly in the case of seeds, in which the specific gravity differs but little from that of the fluid. For example, those of Cucurbitaceous plants, which are produced during cold seasons, float upon water, and nevertheless germinate very well. It is known too, says M. APPELIUS, that the seeds of these plants which have been kept a few years produce plants bearing more female flowers than younger plants; that is to say, the plants are more prolific than those raised from seeds gathered in a cold season and planted shortly after they have ripened. Good seeds of the melon and gourd lose weight as they grow old; at first they will sink in water, and by the sixth year half of them will float, without having become bad."

From this it will be seen that the trial by water is not to be depended on. It answers very well with those seeds that contain a large proportion of starch, such as those of Cereals and Leguminous

plants, but not with those that contain oil or air, and whose seeds are nearly equal to water in specific gravity, such as carrots, parsnips, lettuce, etc.

M. APPELIUS also gives a table containing the length of time necessary for the seeds of many plants to germinate at a temperature of 54° to 64° in the open air, from which we select the following as being most important, the figure after each name indicating the number of days the seed takes to grow. Garden cress, 2; cabbage, lettuce, buckwheat, 4; pea, melon, rye-grass, 5; rye, barley, oats, maize, 7; wheat, kidney beans, 8; sugar beet, tobacco, 10; clover, onion, 15; parsnip, parsley, 21; potato, 27. This table indicates that the lightest seed require the longest time to germinate.

"A tolerably large number of seeds come up slowly and even with difficulty; they are generally those which have a thick, tough skin. In this case it is a good plan to soak the sample in hot water from 167° to 185° for four-and-twenty hours, and not to sow it until after it has been prepared in this manner.

"The spores of ferns and the seeds of orchids, which are very minute, come up readily, if they are scattered on pieces of peat placed in a pan with water."

In his opinion, the reason of the frequent failure of seeds in gardens is that they are sown in earth that is too dry, and buried too deep; and he recommends that seeds of perfectly hardy annuals be sown late in autumn or very early in spring.

RENOVATING OLD APPLE TREES.

EDS. GENESEE FARMER:—On returning from the west two years since, after an absence of nearly twenty years, I found that many old familiar trees in the orchards here had been removed from their places, like those who planted them, fifty years ago; while many more showed signs of rapid decay. A year ago last spring, I thought I would try the virtue of trimming upon a tree which was considered hopeless—about half of the limbs being dead, and the others showing but little signs of life.

In the first place I removed all the dead wood, and then instead of cutting out a part of the large branches that remained, I carefully thinned out the small ones, taking perhaps a quarter of the live branches. The tree thus trimmed put out its foliage after a fashion, stood it through the winter, and the last season had quite a lively appearance, and bore considerable fruit.

Last spring I tried another which had been a valuable tree, but now one side, including the heart, had rotted and gone, and many of the branches were dry; and as very few fruit buds were set upon it, I thought nothing could be lost by removing a considerable portion of the wood. I therefore went through with the same process as before, spending most of the time for half a day in its top, to thin out as far as I could reach, and not to cut any large branches. In blooming time there appeared but few blossoms, though pretty evenly

distributed. I noticed as the season advanced that the tree did not cast a part of its young fruit, as was the case with other trees, but that where there was a bunch of flowers there appeared a bunch of fruit, and it remained on in clusters until ripe; while other trees of the same variety produced only a single apple in a place. The tree probably never bore fairer fruit; and I could not have believed from its appearance, to look at it, that it had anything near the amount of fruit which it proved to contain, as it produced more from the branches which were concealed from view than the other trees of the orchard.

I also experimented upon decaying cherry and other trees, with similar results. I have likewise applied manure in some of these cases—not around the trunk, but over about the same area as would be covered by the top, which is certainly an advantage to the grain and grass growing under the trees, and I have no doubt is an active agent in invigorating the tree, by giving nourishment to the fibres, which bear about the same relation to the main roots as regard number and extent, as the twigs do to the principal branches.

So I conclude, from my experiments, that the best mode of renovating trees that begin to show signs of dissolution, is to cut many small branches instead of a few large ones, and some of them remote from the trunk, though it costs more labor; and also, in fertilizing, to feed many small and remote fibres, rather than a few large roots which have no means of appropriating it near the trunk of the tree.

The time for trimming, which might furnish the subject for another article, I will merely suggest, should be—after enjoying the repose of winter, the tree has collected its renewed energies, and in the form of sap has commenced its annual effort to repair injuries, and to create the foliage and fruitage of another season.

The manner of trimming is to use a sharp instrument, leaving just that amount of stub which will heal over the most rapidly, as the long stub will decay to the body or main branch from which it is severed; and as the healing process has been obstructed, furnishes an avenue to the heart, by which dissolution instead of renovation is the more speedily accomplished, as many victims of the "long practice will testify.

E. OWEN.

Wyoming, March, 1860.

HYBRID PERPETUAL ROSES.

THE following is an extract from a letter to the Chairman of the Flower Committee of the Massachusetts Horticultural Society, published in their last volume of Transactions, and which contains some good sentiments and ideas, well expressed:

"As you request from me some suggestions upon the culture of the rose, I shall first, and gladly, embrace the opportunity to again remind you that our Society offers no premiums for Fall Blooming Roses. It is certainly true, as you have said, that the display would be too meagre to warrant large premiums. Are we then to settle down to the melancholy conviction that the name "Hardy Perpetual Rose" is only a figment? Are we really to expect only a few stray and imperfect blooms, merely serving as reminders of glory departed?

It is a gross slander upon the first of blood of this royal family. Hardy, hybrid-perpetual roses are the great step in advance in rose culture of the present age, and the step is a complete reality. Our meagre fall show is a disgrace, not to the class, but to ourselves. And if genuine love has not provoked to good deeds, let a competition be created by premiums, and the public will learn that September is striving for the mastery in flowers, as well as fruit. I will add a few rambling suggestions for the attainment of so desirable a result.

"Against public sentiment, and the opinion of some experienced cultivators, I affirm that the *Manetti* stock is the foundation on which to build. There are a few varieties which are exceptions; but for the great majority of varieties the *Manetti* stock will secure the premium against all other competition. Does any one complain that it suckers, and gives too much trouble? Then let them go back to the June roses and talk no more about their devotion to the Queen of Flowers. It is admitted that the *Manetti* stock does sucker; but upon established and properly treated plants the tendency is so slight that a real rose lover should be heartily ashamed to make complaints, when he receives such complete return for his slight care. I consider it important that the rose should be so worked that the whole of the *Manetti* should be under ground, as in the case of the quince for the pear. In such condition it is my experience that the plant is quite as long lived and more vigorous than when on its own root—vigor is all-important to free and perfect fall-bearing.

"Again, it is necessary to a succession of flowers that the plant should not exhaust itself in June. A *Baldwin* apple tree, that has loaded itself to the ground, we do not ask to bear again for two years. A rose will bend under its burden, constantly, throughout the year. Three-fourths of the June buds must be nipped, the strongest shoots must be checked, and some branches severely cut back. Then the plant will throw out new laterals with vigor, and the crowning buds will open in all the magnificence of June. Does some drone here put in a word about all this trouble? Then go back again to the old June rose, and boast no more of your allegiance. A word about winter management. I have found that plants do best when removed every year: Opportunity is thus given to trench and enrich the soil and put the ground in fine tilth, in the spring, at planting. When removal is practised, plants are best wintered by burying them root and branch in a dry, light mould, away from all vermin, and, to a partial extent, away from frost. This method is preferable to cellars, or cold-frames, being less troublesome, and better for the plants. It is beautiful to see the plump buds and the fresh wood full of sap—kept by the cool, genial moisture of mother earth. By this method of "living burial," the most tender roses may be preserved. But it is, of course, essential that the mound should be light and dry, so that winter rains will quickly drain off. Should this method of yearly transplanting seem too laborious, a plan answering nearly as well as this, is to draw up a generous hill of earth around each plant, and then cut off all the wood that appears above ground, taking care that the extreme roots are not exposed by this hilling process."

AMERICAN WINE.

As an evidence of the possibility of making wine in countries previously believed to be unsuitable to the culture of the vine, we may instance the case of the United States, where considerable progress is being made over a large extent of territory, and in widely dissimilar climates. Mr. ESKINE, our Secretary of Legation at Washington, in a report recently submitted to the Foreign Office, furnishes some interesting details. It is a generally received opinion that in Europe good wine can not be produced in regions where the mean temperature of the year does not exceed 50 degrees of Fahrenheit; and it is deemed essential that the summer heat should be of some duration, with a mean temperature of not more than 70 or 71 degrees; that the atmosphere should generally be clear and dry, the cold in winter not excessive, and the soil dry. Along the seaboard of the United States, most of these supposed requisites are wanting; and so far back as the year 1817, HUMBOLDT predicted that the vine could not be cultivated in America north of the 40th degree of north latitude, the climate of which, it was assumed, would bear a close resemblance to that of the 50th parallel in Europe. But on the settlement of the regions lying to the west of the Alleghany Mountains, it was found that the vine might be there grown with greater prospect of success, in consequence of the climate being less moist than on the coast; and accordingly a palatable red wine was made from the native grape in Indiana and Missouri, toward the end of the last century. About the year 1826, the Catawba, a native American grape, was first brought into notice, having been found growing in Georgetown, near Washington. This vine, which is derived from the wild fox grape, has gradually supplanted all others, and is now adopted almost universally throughout the United States for making wine. It imparts a very peculiar musky flavor to the wine, displeasing, when first tasted, to many palates; but this dislike is easily removed by habit, and the wine is much relished in Ohio and Missouri, where it sells readily at prices which would be deemed exorbitant in the wine countries of Europe.

The Catawba is at present almost the only grape cultivated on a large scale in North America for wine. In time, however, other varieties will doubtless be discovered, better adapted to the widely differing soils and climates of the Northern and Southern States. In southern Missouri alone, 5,000,000 acres might be selected, admirably calculated for vineyards, without encroaching upon the better lands adapted to other crops. This single State has an area available for vine culture more than equalling that of all Europe. In the Carolinas and Georgia also, there are said to be hundreds of thousands of acres of poor and partially exhausted hill-sides, which are unfit for the growth of either cotton or maize, which might easily and cheaply be converted into vineyards.

Even in California, the vine grows in great perfection, yielding an abundance of good wine. The banks of the Ohio are now studded with vineyards, between 1,500 and 2,000 acres being planted in the immediate vicinity of Cincinnati, with every prospect of a vast increase. In at least twenty-two out of thirty-two States in the Union, vineyards, of more or less promise and extent, have been planted.

The extent of vineyards is thus returned at the present time: In Ohio, 3,000 acres; in Indiana, 1,000; in Missouri and Illinois, 500 each; Georgia, 100; North Carolina, 300; and South Carolina, 200. It is calculated that at least 2,000,000 gallons of wine are now raised in the United States; the average value of which may be taken at 6s. per gallon.

Large quantities of sparkling wine are made both at Cincinnati and St. Louis, in imitation of champagne, and fetch, under the name of "Sparkling Catawba," about \$1 a bottle. It is made by exactly the same complicated process and with as much care as in France, which will account for the high price. At no distant period, wine will be produced as cheaply and abundantly in the United States as in Europe, although not equal to the best quality of European wines. Whether American wines will ever become an important article of export, must depend mainly upon the price at which they can be produced, but the home market is already so extensive that many years must, at all events, elapse before wine can be raised in sufficient quantities to turn the current of trade, and convert the United States into the exporters of an article which has hitherto been chiefly derived from abroad.—*London Mark Lane Express.*

A CHEAP AND SPEEDY WAY TO SET A GRASS PLAT.

To attempt to secure a good sod upon a doorway, or grass-plat in the garden, by sowing the seed, is a somewhat slow and uncertain business. To secure a good "stand" of grass in a field requires a good preparation of the soil, good seed and a favorable season; but to secure this in a small yard, exposed to shade, and liable to be scratched up by fowls, and trod down by children and injured, as it is liable when sown in a yard near the house, it is still more uncertain than in field culture. Hence, most people prefer to incur the expense of securing turf from the fields and commons for sodding their yards. This is an expensive process, and too frequently somebody's grounds in the neighborhood are made to suffer a depredation to supply the turf.

At different times during last season, in improving the grounds about the homestead, we had occasion to sod several pieces, but no rich, thick-set grounds were convenient where we could procure the turf entire, we therefore adopted another plan. We procured less perfect sods, cut without care and threw them into the cart promiscuously; and after plowing the ground well to receive them, we chopped them up into small pieces, say from one to two inches across, more or less, and worked these under the surface, barely covering the roots, etc. After the first rain these small pieces of turf sent up numerous blades, and in a short time the ground became entirely covered with grass. These experiments were tried several times from July to September, and always with perfect success, though of course the latest planting did not become so thickly set before cold weather set in. In all ordinary cases we should prefer this method to entire seeding, even if turf was at hand, on account of the saving of time and expense.

Blue-grass roots are very tenacious of life, and when scattered in the way we have named, so as to cover one-quarter of the ground, will soon spread so as to make a thick-set lawn."—*Valley Farmer.*

EXPERIMENTAL GARDENING—NEW AND VALUABLE PLANTS TO CULTIVATE.

(Continued from page 125.)

THE APPLE PIE MELON.—We have grown this melon for the past two seasons, and we are more than ever convinced of its value. It attains a large size; we have grown specimens the past season, 18 inches in length, weighing from 30 to 35 lbs. They are cylindrical in shape; color, when ripe, golden tint; flesh firm and close-grained; color of seeds, a dark green. They prove perfectly hardy and easy of culture; should be planted 8 feet apart, and two plants in each hill is sufficient. Gathered when ripe, and kept in a cool place, free from frost, they will keep fresh and good a year or more. In California, they have been kept two years, sound and good (so says the editor of the *California Farmer*). We have tested them for pies and preserves, and find them very delicious. To prepare them for pies, peel and cut up the melon small, taking out the seeds, soft pulp, etc. Put them in a preserving kettle, with just enough water to keep them from burning, and stew over a tolerably brisk fire for three or four hours, or until the whole is reduced to a soft, pulpy mass, free from lumps and thoroughly done. Add sugar and a little lemon or tartaric acid, and make up with crust in the usual way, and you will find them as good, if not superior to an apple pie. If you desire a pumpkin or custard pie of the melons, stew as above, but omit the acid, and bring the pulpy mass to the proper thickness and consistency by adding sugar, milk and eggs. Little of either of these ingredients will be found necessary—only sufficient to give the color and flavor. For preserves, add one lb. of sugar to one lb. of the fruit.

WINTER CHERRY (*Physalis viscosa*).—We have grown this fruit for several years, under the name of "Cape Gooseberry," but perhaps "Winter Cherry" is a more appropriate name, as the fruit can be kept through the winter without any preparation, only to lay it in its capsules out of the way of the frost. As we learn how to use this fruit, we are more than ever convinced of its value. For preserves, one lb. of sugar to one lb. of fruit, add a little lemon or tartaric acid, stew down, as for other preserves; it has a superior pine-apple flavor. We use the fruit for pies, pickles, etc., and most persons, especially children, are fond of the ripe fruit, without any preparation. Cultivate the same as for the tomato.

SWEET MARTYNEA (*Martynia fragrans*, or pickle plant).—An annual, very hardy and easy of culture. The seed pods, when young and tender, are highly esteemed for pickling. This plant is very peculiar in its form, and, when in bloom, imparts a very fragrant odor.

Of CANTELUPES, the following three varieties we find to be of extra quality: *Jenny Lind*, *Pine Apple*, and *Turk's Cap*. They are of a globular shape, green flesh, and netted rind.

CALIFORNIA PROLIFIC BEAN.—In the spring of 1859, we received from Wm. B. Phelps, Esq., of Stockton, Cal., a sample of these beans, for which we are under many obligations, as also for other valuable seeds. This bean is of a medium size, of peach-blow color, and very prolific; requiring only one, or at most two plants in a hill, as it produces many lateral branches. It is a short runner, only

from three to four feet in height. We find, in planting them with corn, one bean in each hill answers the purpose well. By cooking these beans in the following manner, they constitute a savory dish, and need only to be tasted to be appreciated. Having cleaned these beans, put them in cold water, add a little salt, and boil until done, but not so much as to have them crack open. Have ready a frying-pan, with some lard, which heat until it nearly boils. Then take the beans out with a skimmer, and put them into the frying pan, and fry them until they absorb nearly all the fat. Then add about a pint of the bean liquor (of which you must reserve a plenty); boil, or rather fry a few moments, stirring it gently; but be sure the liquor does not all boil away, as it is this which gives the beans such a delicious flavor. They are then ready for the table. L. N.

CRANBERRIES AND THEIR CULTURE.

EDS. GENESÉE FARMER:—To the question so often submitted, what lands are best adapted to the culture of the cranberry? I reply, so far as my observations and experiments have extended, that low, wet land is much better than dry upland. Basins, or marshes that are sometimes flooded, retaining, as the water runs off or sinks away, alluvial deposits, seem to be the best adapted to the growth of the cranberry. It is what might be termed a semi-aquatic plant, flourishing best on that part of the farm usually thought to be useless.

The ground, during the summer, may be too wet as well as too dry. To guard against this, it will be necessary to cut drains sufficient in number and capacity to lead off the surface water.

These drains may be closed in the fall, after the berries are gathered, so as to overflow the meadow during the winter to prevent weeds from growing in the fall and spring, and to destroy insects that might prove injurious to the vines.

The surplus water being drawn off, the ground is now ready for the plants, if it be free from weeds or grass. Where the land has not been sufficiently covered with water to prevent the formation of a sod, it will be necessary to pare off, with a spade or plow, the sod to a depth sufficient to remove the roots of the grass. The sod so removed, if snugly piled, will soon form a valuable compost for fruit trees. In the clean surface thus exposed, open, shallow, parallel trenches, eighteen inches or two feet apart, and in these trenches place vines, varying from one to four feet in length, slightly covering them every six or eight inches, which completes the labor of transplanting.

The month of April or May is best for transplanting, as those transplanted in the fall are liable to be thrown out by the frost. They are rapid growers, covering the ground within two or three years after setting, and often producing fruit the first year. I see no reason why cranberry meadows may not be permanent, when once started. The vines on Martha's vineyard have yielded berries ever since 1805. The vine which I cultivate, the Low-land Bell, is an annual bearer.

No fears need be entertained as to the success of transplanting. Only take care to set in moist soil. The soil devoted to cranberry culture will need no enriching from year to year, since they do not impoverish the soil like the grasses and grains.

I doubt not but there is many a farmer who has (as I once had) some corner, or spot more central, upon which he never turns his eyes without feeling regret that his farm should be so disfigured by unsightly ponds or marshes, who might, in a very short time, and with comparatively very little labor, make it one of the most comely and profitable sections of the farm.

NOBLE HILL.

Steuben Co., N. Y.

BEST FRUIT FOR MARKET PURPOSES.

EDS. GENESEE FARMER:—I wish to say a word about a premium article in your February number, p. 59, entitled "Best Fruit for Market Purposes." I have nothing to say against the six varieties of pears there recommended, but assuredly the apples are *wrong*.

In the first place, he who plants an orchard, wishes to see and eat his fruit in something less than twenty years, which he would not be likely to do from an orchard of *Northern Spys*, which ELLIOTT says "can not be considered a profitable variety until the trees have acquired at least twenty years of age, as it is very tardy in coming into bearing."^{*} The *Newton Pippin*, it is notorious, is one of the most uncertain varieties, and not an early bearer.† The *Spitzenburg* is only successful in particular localities, and, even in those, a slow grower and a shy bearer. The *Roxbury Russet* succeeds nearly everywhere in the Eastern and Middle States, and is *very* productive, but is only ordinary in quality, and never brings a high price in market.‡ The *Rhode Island Greening* is a good apple, productive, and a tolerably early bearer, but, in the opinion of some eminent pomologists, is failing.§ *And*, what need of planting old and failing varieties, when there are others that take the market equally well, or better, that are young and constant bearers, of thrifty habit and healthy growth, and that for *price*, head off even the best *Spitzenburghs*.

In the hope that I may deter some one from planting *Newton Pippins* and *Northern Spys*, I will give my list of varieties, and a reason or reasons therefor; premising, however, that the *Baldwin* and *Red Astrachan* are first class apples, either for market or family use. I should name for a list of six varieties, *Wagner*, *Baldwin*, *Winter King* (Tompkins county), *Lowell*, *Astrachan*, and *Gravenstein*. The few *Wagner* and *Winter King* apples that have been sent to market (New York), have been taken readily at from \$4 to \$5 per barrel.

*This opinion we believe to be erroneous and has gained credence from the fact that the *Northern Spy* is such an upright, compact grower that, in its early stages, the wood and leaves are so crowded as effectually to prevent fruit from forming. If attention is paid to pruning and thinning out the branches judiciously, so as to freely admit air and light into the head of the tree, it proves an early and good bearer.

†Our correspondent will observe that the *Newton Pippin* was recommended only for such localities as it was adapted to, and in such cases it is well known to be a valuable and profitable sort.

‡As a market variety, the *Roxbury Russet* stands deservedly high among orchardists, as its long-keeping qualities enable the grower to sell it at a season when fruit is scarce and high. One of the best fruit growers in this region—a man of much experience—told us he would select this sort as one, if he were confined to two varieties.

§There is nothing in this,

EDS.

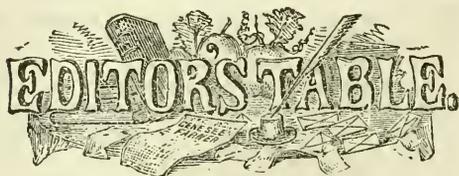
They are most abundant and constant bearers, and the *Wagner* is the most productive bearer on *young* trees of which I have any knowledge. I have seen trees in the nursery rows, four years from the graft, loaded with fair, handsome fruit. For early bearing, the *Baldwin* stands next to the *Wagner* and the *Winter King* is but two or three years behind, while it makes a better growth and finer head than either of the others, and is equal to either of them in productiveness. The *Astrachan* is well known, and is admitted to be, all things considered, first on the list of early apples. The *Lowell* is a first rate apple for market. ELLIOTT says of it: "The early habit of productiveness, with the uniformly large, fair fruit, will always command a place in orchards where this variety is known." TUCKER says of it, in the *Annual Register*: "Valuable for its productiveness,—bearing when young—and for its uniformly fair, handsome fruit." The *Gravenstein* is one of our finest fall apples. It has proved fine in the Middle and Eastern, as well as some of the Southern States, and those who were not afraid of a few foreign scions twenty-five or thirty years ago, are now reaping their reward in an abundance of the finest fruit, that will sell in Boston or New York at \$5 per barrel. It is a thrifty grower, and forms an unusually fine head. It is *very* productive.

I have named six varieties for market: it does not follow that I would make use of them all in planting an orchard for market. On the contrary, in planting an orchard for market and for *nothing else*, I would plant every tree of one variety, taking either the *Wagner*, *King*, or *Baldwin*. Who that has marketed apples, does not know the advantages of having a superior, *uniform* lot,—a lot that when he has shown one barrel, he has shown the whole? (Culling out all the unfair and small fruit, makes much less difference in the measure than one would suppose who had never seen it tried.) It happens, however, that *no* orchard was ever planted for market, and *nothing else*. A man can not do it. Therefore, plant the beautiful *Astrachan*, and it shall gladden your eyes and palate, besides bringing money to your pocket; the *Gravenstein*, which shall ripen as the *Astrachan* fades, and is superior to it; and the *Lowell*, that you may see fair, ripe fruit some three years after planting, as it is a *very* early bearer. So shall your heart be gladdened, and your children, seeing no pleasanter spot than the old orchard, no sweeter place than home, will remain to cheer your old age; leaving junk and corn-dodgers, ague and fevers, to those whose daddy has got no orchard, and are bound to "go West."

G. W. S.

Wellsboro, Pa., Feb. 15, 1860.

THE CURCULIO REMEDY.—A recipe, reported to be a remedy for the curculio—copied from the *N. Y. Observer*—was published, at my request, in the *Genesee Farmer* for May, 1859, page 158. Persons engaged in the culture of fruit were requested to try it, and report the result. I gave it a fair trial, and pronounce it a failure—at least, so far as my experience will justify an expression of opinion. The curculio was frequently found on the trees in the morning, after a thorough application of the supposed remedy on the previous evening. It was freely used on apricots, and all the fruit was lost.—JOHN BRADFIELD, Rochester, N. Y.



New Advertisements this Month.

- The Yeomans' Fruit Bottle—T. G. Yeomans, Walworth, N. Y.
 Evergreen Tree and Shrub Seeds—J. M. Thorburn & Co., New York.
- European Potatoes—B. K. Bliss, Springfield, Mass.
 Improved Superphosphate of Lime—Wm. Paterson, Newark, N. J.
- Long Orange Carrot—J. M. Thorburn & Co., New York.
 New Valuable Squash Seeds—J. M. Thorburn & Co., New York.
 Dioscorea Batatas—J. M. Thorburn & Co., New York.
 Everybody's Lawyer and Counsellor in Business—John E. Potter, Philadelphia, Pa.
- Agricultural Implements—A. Longett, New York.
 Pint and Quart Berry Boxes—Nicholas Hallock, Queens, N. Y.
 Premium Six Weeks' Potatoes—Charles C. Holton, Rochester, N. Y.
- Devon Cattle and Essex Hogs—Geo. F. Curwen, West Haverford, Pa.
- Jersey Cattle—William Redmond, New York.
 Thorough-bred Ayrshire Cattle, &c.—H. T. Wollard, Castine, O.
 Hereford Cattle, Hampshire Down Sheep and Berkshire Hogs—John Merryman, Hayfields, Md.
- Durham Bull for Sale—A. M. Underhill, Clinton Corners, N. Y.
 Hubbard Squash Seed at Wholesale—James J. H. Gregory, Marblehead, Mass.
- Davis' Seedling and Prince Albert Potatoes—John A. Robinson, Beleher, N. Y.
- Patent Water-proof Composition—A. Brower & Co., New York.
 Country Agents Wanted—J. W. Harris & Co., Boston, Mass.
 Raspberries, &c., Cheap—Jno. S. Gould, Macedon, N. Y.
 New Evergreens—Parsons & Co., Flushing, near New York.
 New York State Agricultural Society—B. P. Johnson, Secretary, Albany, N. Y.
- Flower Seeds by Mail—J. M. Thorburn & Co., New York.
 Rochester Agricultural Works—Alexander Gordon, Rochester, N. Y.
- Thirty Agents Wanted—C. Beadle, St. Catharines, C. W.
 Attention Sunday Schools—Dayton & Co., New York.
 Harvesting Machine Manufacturing Company—A. G. Fisher, Secretary, New York.
- Proposal to Establish Sunday School Libraries Free of Cost—Dayton & Co., New York.
- Egyptian Corn—M. E. Crandal, Sandwich, Ill.
 Po'keepsie Small Fruit Nursery—Edwin Marshall, Po'keepsie, N. Y.
- Suffolk Swine—Josiah Stickney, Boston, Mass.

SPECIAL ANNOUNCEMENT.—Last year we offered to receive subscriptions for the half-volume of the *Genesee Farmer*, commencing with the July number. Hundreds of our friends, in all parts of the country, kindly undertook to get subscriptions, and the result was that we received an addition of nearly *five thousand* new subscribers to the half-yearly volume. We renew the same offer this year, and in addition will present every subscriber to the half-volume, whose subscription is sent in before the first of June, *the next number of the paper free*. Will not every one of our readers tell their neighbors of this liberal offer?

TERMS FOR THE HALF-VOLUME.—Single subscribers, 25 cents; five copies for \$1.00; eight copies for \$1.50.

SPECIFIC PREMIUMS.—To every one sending us a dollar, for five subscribers to the half-volume, we will send a copy of our beautiful 25 cent book, the *Rural Annual and Horticultural Directory* for 1860, pre-paid by mail! We will also send a copy of the *Rural Annual* to every one sending us \$1.50 for eight subscribers. To every one sending \$3 for sixteen subscribers, we will forward a copy of the *Rural Annual* and an extra copy of the *Farmer* for a year, or two extra copies for the half-volume. Those sending more subscribers will generally take some of the Cash Prizes (see last page of this number). If not, specific premiums will be paid in the same ratio as the above.

CASH PRIZES.—We offer a number of liberal Cash Prizes for the greatest number of subscribers to the half-volume (see last page of this number). There are twelve prizes, similar in amount to those offered last year, and a very little effort will enable any of our readers to secure one of them. Last year Prizes were taken by clubs of subscribers to the half-volume, of 22, 23, 24, 25, 27, 28, 29, 30, 32, 36, 41 and 42.

Will not our friends compete for these Prizes? Recollect that all who send in subscriptions before the last of this month, will receive the June number free!

SPLENDID WOOD CUTS FOR SALE.—We will sell stereo types of any of the wood cuts that have been used in the *Genesee Farmer*. A book containing impressions of the cuts, names, prices, etc., will be sent to those wishing to purchase. Our collection of agricultural and horticultural engravings is unsurpassed—containing over eighteen hundred cuts, that have cost at least seven thousand dollars. They have never before been offered for sale. They will be sold at from one-third to one-fourth the original cost.

POSTAGE OF THE FARMER.—We understand that the post master at Rochester, Iowa, charges 1½ cents postage on the *Farmer* each month. Our subscribers should not submit to this. The legal rates of postage are *half a cent* on each copy per month, or a cent and a half per quarter. In this State the rates are half the above, or three cents a year.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—Every one sending us one dollar for the five subscribers to the half-volume of the *Farmer*, will receive a copy of this beautiful work for his trouble.

TELL YOUR NEIGHBOR.—All who subscribe for the next half-volume of the *Genesee Farmer* (July to December, inclusive,) before the end of this month, will receive the June number free.

PLEURO-PNEUMONIA.—This terrible disease has appeared among cattle in some parts of Massachusetts, and has caused great alarm. It is generally fatal, though we have known instances in England where a good part of a large herd have been attacked and recovered. The disease has been known in this country in years past, but did not spread. The Legislature of Massachusetts have authorized commissioners to visit the infected districts, and to have all cattle that are affected killed and buried—the State to pay the owners the value of the cattle. It is hoped that by these means the disease will be confined to its present limits.

APRIL PREMIUMS.—The competition for our April Premiums has resulted as follows:

1. G. Pattison, Crowland, C. W.,	\$25 for 124 subs.
2. O. S. Cummings, Trenton Falls, N. Y.,	20 " 104 "
3. I. W. Briggs, Macedon, N. Y.,	19 " 74 "
4. E. S. Salisbury, Adams, N. Y.,	18 " 71 "
5. C. W. Oliphant, Gt. St. Lk. City, Utah,	17 " 68 "
6. John Dorr, Scottsville, N. Y.,	16 " 60 "
7. W. McKinstry, Fredonia, N. Y.,	15 " 58 "
8. L. H. Denison, Millgrove, N. Y.,	14 " 57 "
9. Alex. Neal, Pulaski, Pa.,	13 " 56 "
10. Cap'n G. Converse, Wilkesbarre, Pa.,	12 " 51 "
11. N. S. Demill, Demorestville, C. W.,	11 " 50 "
12. T. J. Risley, Springville, Pa.,	10 " 48 "
13. H. White, Chatham, C. W.,	9 " 47 "
14. T. McQueen, Goderich, C. W.,	8 " 46 "
15. W. A. Sumner, Pittsboro, Miss.,	7 " 44 "
16. J. Marshall, Thamesville, C. W.,	6 " 43 "
17. L. B. Hanford, Danby, N. Y.,	5 " 38 "
18. J. Mavity, Crescent City, Cal.,	4 " 35 "
19. John Lockard, Kettleby, C. W.,	3 " 34 "
20. J. V. Payne, Ifillsboro, Ky.,	2 " 33 "
21. E. Bond, Bond's Village, Mass.,	1 " 31 "

Our friends can draw on us at sight for the amount, or we will send it by mail or in any other way they may designate.

NOTES ON THE WEATHER FROM MARCH 15TH TO APRIL 16TH, 1860.—The average temperature of the last half of March was 38.2°, and for 23 years was 34.5°; for the month was 36.7°, and for 23 years was 32.5°. The month was a warm one; 4° above the mean for many years, but 3° below that for March, 1859.

The water from snow and rain in the month was only 1.643 inches—rather small quantity, and has been for the last three months. The earth, however, seems to be adequately moist.

The warmest noon was 68° on the 30th, and the coldest morning was 21° on both 22d and 23d. Much the warmest day was the 31st, the average being 57.3°.

The last half of March may be considered mostly pleasant, there being several clear and fine days.

On the 25th, the aurora borealis was fine.

Skunk cabbage was in blossom on the 16th; and the stamens of soft maple flowers were fully out on the 18th, and killed by the snow storm a few days after. Wind and dust near the end of the month, or in the last week.

April has been rather unpleasant and cold to the middle, the mean heat being 42°, and for 23 years 41°, which is a little higher than the last half of March. At noon of the 8th, the thermometer stood at 72°, but since the weather has been cold; on the 15th, in the morning, 25°, and 4 inches of snow on the morning of the 14th, a storm which began with wind and rain between 12 and 1 A. M. Quite a rain on the 10th, with lightning and one clap of thunder at 9 A. M. Much wind in this fortnight; a gale on Lake Ontario on the 12th and 13th; a great rain over Ohio on the 9th and 10th.

Aurora borealis on the 11th and on the 12th eve, a band of white, cottony light from east to west, and north of the zenith, somewhat broken in parts, and having a wavy motion westward and progress southward. On the 13th

eve, 10 to 11, in the northeast quarter, a splendid aurora of various hues flashing in light from the horizon toward the zenith.

The soft maple showed its flowers freely on the 11th, and at that time the Trailing Arbutus, Wild Globe Flower, Liverwort, and an early sedge-grass, were in bloom. Fields of wheat look fine for the season.

The cooler weather of this half of April is no doubt favorable in checking the rapid progress of plants from the warmth of the previous month.

THE GENESEE FARMER IN CANADA.—A correspondent of the *Canadian Agriculturist* urges the farmers of Canada to support their own agricultural paper, and alludes to the circulation of the *Genesee Farmer* in Canada as follows:

You, Mr. Editor, have a great responsibility resting on you. The *Agriculturist* being the only agricultural paper in Western Canada, it should "lift its banner on high," and take a noble stand; endeavor to create a national literature worthy of the country and the people it represents; depend more upon home productions than foreign. There is sufficient talent among the farmers in Canada to make the *Agriculturist* one of the best papers on the continent; it only requires to be brought out in some way.

By reference to the columns of the *Genesee Farmer* you will find that eight of the twenty-one premiums given to agents, were taken by residents in Canada West; and I have no doubt that the circulation of that paper is larger here than in any one State in the Union.

You will also find that there is about the same proportion of correspondents in Canada West. In my opinion, the secret of their success lies in this general correspondence from all parts of the Northern States and Canada. Farmers have adopted it as their own paper; where they can freely communicate their thoughts and experience—it may be—in a homespun way; still it is comprehensible and practicable. Now, I see no reason why this correspondence may not be diverted or brought to contribute to the success of our own *Canadian paper*. Surely there ought to be sufficient patriotism among farmers to prefer a provincial before a foreign production, if the article is equally as good. There is no reason why any present subscriber to the *Genesee Farmer* should give it up when 37½ cents will pay for so much valuable reading—but I do think that we ought to do as much for the *Agriculturist*, and assist the managers to give it a national standing and render it not only interesting and profitable, but also a high authority on agricultural matters generally.

There is no reason why its circulation should not reach to twenty thousand. Its price is almost nothing, and it has the advantage of being free of postage.

We cordially endorse the above. We are well aware that "there is sufficient talent among the farmers of Canada to make the *Agriculturist* one of the best papers on the continent." But we have made great efforts to induce farmers in all sections of the United States and in the Canadas to favor us with their views on agricultural and horticultural subjects, and, as the writer says above, we have so far succeeded that thousands of intelligent farmers and fruit-growers have adopted the *Genesee Farmer* as their "own paper, where they can freely communicate their thoughts and experience." Now, how is agricultural science to be benefitted by having our Canadian correspondence "diverted?" Our Canadian subscribers have the benefit of the recorded experience of farmers in the States. Why should they not reciprocate? Science knows no country. The *Genesee Farmer* is as useful in Canada as in the State of New York. This the intelligent Canadian farmers fully appreciate, and hence its large circulation among them, even in the face of the heavy duty imposed on it in the shape of postage.

It is a mistake, however, to suppose that our circulation in Canada is greater "than in any one State in the Union." It is considerably larger this year than ever before, but still we have not over 4,500 in the whole Province—less than one-half what it is in this State. Our circulation, too, is nearly, if not quite, as large in Pennsylvania as in all the British Provinces together; and in Ohio, Kentucky, Missouri, Indiana, Michigan and Wisconsin, our circulation is very large, as it is also in all the New England States, and in New Jersey, Virginia and Delaware. We have good lists in every State and Territory, from the Atlantic to the Pacific. In an agricultural point of view, the *Genessee Farmer* is no more a "foreign production" in Canada than it is in any of these States. The principles of agriculture are of universal applicability, and it is these which we endeavor to disseminate and enforce.

WE are indebted to JAMES J. H. GREGORY, of Marblehead, Mass., for a package of seeds of his Marblehead Mammoth Drumhead Cabbage. Mr. G. says he has measured plants "that were nearly six feet around the solid head," and that they will average 30 lbs. a plant by the acre. We shall give them a trial, and if they prove as valuable as the Hubbard Squash introduced by Mr. GREGORY, he will be again entitled to the thanks of the agricultural community.

RULOFSON & HARVEY'S STRAIGHT DRAFT PLOW.—A few days since we witnessed a trial of this plow, designed for either two or three horses. Several farmers and others interested were present, and all expressed themselves as highly pleased with its operation. We consider it one of the very best plows we have ever seen. It is manufactured by A. GORDON, of this city.

PERUVIAN GUANO.—MR. J. K. CHAPPELL, of this city, keeps this guano for sale at 69 Exchange street. We are assured it is a genuine article, and have no doubt that it is so. Genuine Peruvian guano is beyond all question the most powerful and valuable manure in existence, and we recommend our readers to give it a trial. Mr. C. also keeps on hand a supply of plaster, bone-dust, and American Company's guano. Of the latter we can say nothing.

NOTES FROM CANADA WEST.—It was generally thought last fall that hay would fetch an enormous price this spring; but such has been the economy in feeding that article through the winter, that it is now offered in our markets at the low price of \$7 per ton.

Farmers have profited in many ways by last summer's frosts. They have learned that horses and cattle will thrive as well when fed with straw and roots as with hay alone, and these can be furnished at half the price. Thousands of horses in Canada have not tasted hay during the winter, and are now as healthy and as able for spring work as when fed the usual way. More butter has been made during the past winter than in any winter previous, and has seldom sold higher than 12½ cents per lb. We have discovered that roots are indispensable to successful farming and feeding. Great preparations are being made for extending the cultivation of roots this year. Our Societies are adopting the plan of awarding prizes for the best acre as seen in the field.

The first two weeks in March took nearly all of the frost out of the ground, and left the roots of the wheat exposed to the severe frosts and blighting winds of the latter half of the month; consequently much injury has been done to that which is exposed to the north and west, but that which is sheltered by woods, or where the land falls to the east, is looking remarkably well.

A very large breadth of land will be sown with spring

wheat, and, it being unusually well prepared, and the season favorable for early sowing, we are anticipating a good yield—provided the *nidge* keeps quiet.

The seasons of late have been so unfavorable for the growth of sugar cane and corn, it is not likely that much will be planted this spring. Hungarian grass has been tested and proved to be no "Yaukee humbug." It will be extensively sown. Flax, too, is receiving a great deal of attention in many parts of Canada. There has been a large quantity of maple sugar made this season. The maple never fails; but the Chinese or African sorghum will, I fear, seldom succeed in this climate.—R. W. S.

Inquiries and Answers.

SALT FOR WORKING OXEN.—How much salt must I give my working oxen? Had I better give it with their feed or separately? Will it injure them to give them all they can eat, and to leave it where they can lick it at their pleasure? What is the relative value of ruta bagas, turnips, potatoes and oats for feeding cattle—working cattle as well as others.—A., *Kerr's Hill, Cratford Co., Pa.*

HARD SOAP.—I want a receipt for making good hard soap. Will some of your correspondents favor me? Also, directions how to make beet sugar would be very acceptable.—C. A. CHASE, *Ohio.*

FISH.—Can any of your correspondents give me information on the subject of raising fish in artificial ponds, and what kind of fish are best, etc.—S. B., *Berlin, Pa.*

PEAT COMPOST.—(A. S., *York, Pa.*) The plan you mention, of mixing two parts muck with one of stable manure, is a good one. The more heating the manure the better. We can see no particular advantage in adding gypsum to the compound. The common idea, that it is a "fixer" of ammonia is not correct, except when the plaster is in solution. We can not say whether it would be advantageous to add lime. It would probably accelerate decomposition if the heap was moist enough, and we should have little apprehension of any great loss of ammonia—the peat would retain all that was evolved by the decomposition of the manure and peat. See an article on this subject in the January number.

WHAT IS THE BEST BREED OF CATTLE?—(A. J. G.) That depends on circumstances. No one breed is best for all purposes, and on all soils. For beef, on the rich lands of the Southwest, the Short-horns and Herefords are best, on somewhat inferior soils, the Devons are perhaps more profitable; for the dairy, the Ayrshires are considered unequalled; for the production of rich milk, and for gentlemen who do not farm for profit, the little Alderney stands at the head. The Galloway has been introduced into some parts of Canada with advantage. The West Highland affords most excellent beef, and is a profitable breed for medium soils. We do not know if they have been introduced here—certainly not extensively.

THE CULTIVATION OF GRAPES.—(G. F. M.) You will find an able treatise on this subject from the pen of JOSIAH SALTER, in the *Rural Annual and Horticultural Directory* for 1858. We will send it to you on receipt of the price—twenty-five cents. You had better get a complete set of this work, consisting of five volumes, which we will send you for one dollar.

HOP TREE.—(S. C., *Hamilton.*) We have never seen the so-called "American hop-tree," and do not know what it is. We have been assured (by a gentleman who had the trees for sale, however) that it produced hops nearly or quite as good as ordinary hops.

COPPERAS FOR SEED CORN.—In reply to our inquiry in the last number of the *Farmer*, Mr. C. NORTON, of Portage Co., Ohio, says he and his neighbors have used it at the rate of a pound to a bushel of corn for five or six years. He says "it will do the corn no injury, and will prevent the depredations of all insects and vermin that prey upon the kernel. At least, the striped ground squirrel, or chipmuck, and the wire-worm, will not eat it." He does not think it will "head off the cut-worm, or any insects that eat the blade." We presume the copperas is dissolved in warm water, and the corn soaked in it for 24 or 36 hours.

SHOULD LIME BE PLOWED IN?—(T. C. J., *Mercerburg, Pa.*) We should certainly prefer to plow it in, rather than let it lie on the surface. The effect of lime is due not so much to its furnishing an actual constituent of plants, but rather to its action in decomposing the organic matter and disintegrating the mineral matter of the soil, and in facilitating the formation of the lime-silicate, which WAX found to have the power of absorbing ammonia from the atmosphere,—and therefore it should be incorporated with the soil, either by plowing in, or by harrowing, cultivating, etc.

THE KITCHEN GARDEN.—(WM. HASKINS.) One of the best practical treatises on this subject you will find in the *Rural Annual and Horticultural Directory* for 1857. We will send it to you, postpaid, by mail, for twenty-five cents in postage stamps. The same volume also contains an admirable treatise on ornamental gardening, and on the cultivation of strawberries, raspberries, blackberries, gooseberries, currants, etc., and on the cultivation of grapes in cold houses, with much other matter of interest to all engaged in the culture of fruit, etc.

A WORK ON GENERAL HORTICULTURE.—(R. M., *Newark, Ohio.*) You will find what you want in the *Rural Annual and Horticultural Directory*. There is more information on nearly all horticultural subjects in the five volumes of this work than in any other work of three times its cost. The articles are all written expressly for its pages by experienced men. A complete set of the work, consisting of five volumes, we will send you, postpaid, by mail for one dollar.

LARGE AND SMALL CLOVER.—(J. O. D.) The large or late clover has this advantage, that it ripens about the same time as timothy, and is on this account better for mixed hay. For pasturage, the small or early kind is generally considered best. It is somewhat difficult to get seed of the genuine large or late clover.

COTSWOLD SHEEP.—(A. J. G., *Ballston Spa, N. Y.*) Cotswolds are well adapted to our climate, and have been successfully introduced in various portions of the Union. They can be procured from Col. J. W. WARE, of Berryville, Va., and also from J. SNELL, of Edmonton, C. W. and F. W. STONE, of Guelph, C. W.

DRAIN TILE MACHINE.—(A. RUSSELL, *Arnprior, C. W.*) The machine made by A. LA TOURETTE, of Waterloo, N. Y., is an excellent one. You can get further particulars by addressing him.

BREMEN GEESE.—In answer to the inquiry in the last *Farmer*, W. R. HILLS, of Albany, N. Y., informs us he has a pair of these geese for sale.

EGYPTIAN OATS.—(A. M. R., *Pu.*) We have never seen these oats. The writer of the article in the February number of the *Farmer*, JOHN T. HOWELL, of Leo, Stanley Co., N. C., informs us that he will send any of our readers a sample of these oats by mail, on receipt of sufficient money to pay postage—that is, he will send four ounces on the receipt of twenty-five cents.

SPANISH FOWLS.—(J. G. F.) I. W. BRIGGS, of West Macedon, N. Y., informs us that he has some Spanish fowls for sale.

Notices of Books, Pamphlets, &c.

WEBSTER'S UNABRIDGED DICTIONARY: New and Illustrated Edition. Springfield, Mass.: G. & C. MERRIAM. Price \$6.50.

The improvements of this new edition render the work as near perfect as possible. There are over 1,500 new and beautiful illustrations. About 10,000 new words have been added to the vocabulary. The table of synonyms, by Dr. GOODRICH, occupies about 70 quarto pages, and contains over 2,000 words. The table giving the pronunciation of over 8,000 names of distinguished persons of modern times, is a valuable addition. The table of words and phrases from the Latin, French, Italian and Spanish, rendered into English, is also exceedingly useful. So also are the tables giving the original signification of Bible names, mottoes of the United States, abbreviations, etc.

CASSELL'S POPULAR NATURAL HISTORY. Profusely illustrated with Splendid Engravings and Tinted Plates. Published in parts on the 1st and 15th of each month. Price 15 cents. New York: CASSELL, PETER & GALPIN, 37 Park Row.

CASSELL'S ILLUSTRATED FAMILY BIBLE. Published in Monthly parts on the 1st and 15th of each month. 15 cents each; 24 numbers, \$3. By CASSELL, PETER & CO., 37 Park Row, New York.

THE YEAR BOOK OF THE FARM AND GARDEN for 1860. With numerous illustrations. Philadelphia: A. M. SPANGLER. Price 25 cents.

NIGHT LESSONS FROM SCRIPTURE. Compiled by the author of "Amy Herbert." New York: D. APPLETON & Co. Price 60 cents.

THE HISTORY OF FRANCE. By PARKER GODWIN. Vol. 1, (*Ancient Gaul.*) New York: HARPER & BROS. Price \$2.

THE CAXTONS: A Family Picture. By Sir EDWARD BULWER LYTTON, Bart. New York: HARPER & BROS. Price \$1.

NOTES ON NURSING: What it is and what it is not. By FLORENCE NIGHTINGALE. New York: HARPER & BROS.

DR. OLDHAM AT GREYSTONE'S AND HIS TALK THERE. New York: D. APPLETON & Co. Price \$1.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

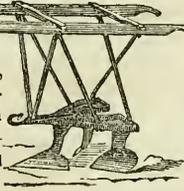
Special Notices.

CLOW'S PATENT COMBINED REAPER AND MOWER.—This excellent machine, the invention of DANIEL CLOW, of Janesville, Wis., is now manufactured in the city of New York by the "Harvesting Machine Manufacturing Co." Agents are wanted in all parts of the country to introduce these machines. For further particulars address the Secretary, A. G. FISHER, 92 Broadway, New York. See advertisement in another column.

POSTPONEMENT OF MR. WAINWRIGHT'S SALE OF NORRH DEVONS.—Mr. WAINWRIGHT'S Second Public Sale of Thoroughbred North Devon Cattle, advertised in the *Farmer*, last month, to take place at the Meadows, Rhinebeck, N. Y., on the 6th of June, has been postponed to June 13th. See advertisement in another column.

ALDEN'S PATENT THILL HOSE HOE—For Corn, Tobacco, and other Root Crops. We would invite the attention of farmers and others to examine

this valuable improvement J. J. THOMAS, Esq., of Union Springs, N. Y., one of the Editors of the *Country Gentleman*, and a large farmer, who will not give his opinion of any Agricultural implement until he has tested it himself, says:



"We have recently made a thorough trial of ALDEN'S NEW THILL CULTIVATOR, and find it an admirable implement. The use of the Thill gives an efficiency, thoroughness and accuracy in working, that render it in this respect superior to any other Cultivator we have tested. A man with a horse will do twice as much work in a given time, on stiff soil, as with a common Cultivator; and the perfect control which the operator has of its depth of running, and the closeness with which he may cut to the rows, without danger of striking or injuring the plants, almost supercedes the use of the hoe in any case.

"It is more easily managed than the Cultivator of common construction, is less fatiguing to the operator, and appears to be easy for the horse. We would recommend it to our readers as the best Cultivator we know. It is made by MILTON ALDEN, of Auburn, N. Y. Price, \$5. It took the First Premium at the Fair of the N. Y. State Agricultural Society, 1859."

"After using ALDEN'S THILL HOSE HOE for two years, I can fully endorse the above.—H. W. DWIGHT, President Cayuga Co. Agricultural Society."

"Having witnessed a trial of ALDEN'S THILL HOSE HOE, we cordially endorse all that Mr. THOMAS has said in regard to its value.—JOSEPH HARRIS, Editor *Genesee Farmer*; C. W. SEELYE of the Rochester Central Nurseries."

A NEW AND MOST VALUABLE PLOW.—We desire to call the attention of the readers of the *Genesee Farmer* to RULOFSON & HARVEY'S STRAIGHT DRAFT PLOW, manufactured by A. GORDON, of Rochester, N. Y. Some of its numerous excellencies are set forth in the following letter, written by a well known and intelligent farmer of Yates Co., N. Y.:

PEN YAN, Yates Co., N. Y.

SIR—Having used your Straight Draft Plow I must say that I am well pleased with it, for the following reasons, among others: First, the ease with which the plowman can hold it. Second, its straight and parallel draft. Third, the ease with which it is changed from a two to three horse plow, retaining its true draft in both cases. Fourth, the mould-board being adapted to a deep or shallow, wide or narrow furrow, pulverizing the soil well, and making uniform work. You have overcome the imperfect line of draft heretofore presented to the team; the line of your plow is preserved at right angles with the shoulders of the team, because of the arrangement of the beam as attached to the iron frame of the plow body. Fifth, its general construction is such that it obviates the necessity of a flange on the land side, used on other plows.

JOHN MALLORY.

For price, &c., see advertisement in another column.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood SUFFOLK PIGS, bred from their importations of 1852, 1853, and 1859, and their descendants.

Address
11 JOSIAH STICKNEY or } Boston, Mass.
ISAAC STICKNEY, }

POUGHKEEPSIE SMALL-FRUIT NURSERY.

STRAWBERRY PLANTS.

OVER ONE HUNDRED VARIETIES IN CULTIVATION.

WILSON'S ALBANY, *Hooker, Peabody, McAvoy's Superior, Hovey, Prince's Imperial, Scarlet Magdalen, &c.*, and all the leading choice varieties, at 35 cts. per doz.; \$1 per 100; \$5 per 1000.

Triomphe de Gand, Trollopes Victoria, Rivers' Eliza, Sir Harry, Swainstone, and all the very choicest Foreign varieties, at 50 cts. per dozen; \$1.50 to \$2 per 100. These varieties are of the VERY LARGEST size, most excellent flavor, and well worthy the attention of amateurs and others wishing superior fruit for family use.

NEW VARIETIES.

Feast's New Fillmore Strawberry—Very prolific; excellent size and flavor. Sent free at \$3 per doz.

Downer's Prolific Strawberry—Largest size; superior flavor. and very productive. Sent free at \$5 per doz.

Chorlton's Prolific Strawberry—Early; largest size; melting and sweet. Sent free at \$1.50 per doz.

RASPBERRIES.

Allen—Very hardy, requires no winter protection; a fine fruit \$1 per doz.; \$5 per 100.

Brinckles' Orange—Best of all for family use. \$1 per doz.

French—Hardy; bears two annual crops; fine fruit. \$1 per doz.; \$5 per 100.

Also, all the leading varieties of

CURRANTS, GOOSEBERRIES AND GRAPES,

at low prices. Catalogues sent gratis.

The undersigned, devoting his personal attention to the exclusive cultivation of Small Fruits, is enabled to offer strong plants true to name, and at low prices. Plants packed with great care for any distance.

EDWIN MARSHALL,
Poughkeepsie, N. Y.

A fine stock of *Linnaeus Rhubarb*, (the best variety grown,) at \$1.50 per doz.; \$5 per 100. May—11

EGYPTIAN CORN.

THE SUBSCRIBER offers to Farmers throughout the country THE EGYPTIAN CORN, which upon trial last year was found to ripen, planted *even the first of July*. It is estimated, from its prolific qualities, to yield 200 bushels per acre, and weighs by sealed measure, 65 lbs. to the bushel. This Corn was produced from some procured direct from Mr. JONES, our Consular Agent directly on his return from Egypt. It requires no different culture from that of other varieties, and in the South two crops can be raised in one season on the same ground. It grows in the form of a *Tree*, and *twenty-two ears* have grown upon one stalk and will average from five to fifteen. For domestic use it is unparallelled. When ground and properly bolted, it is equal in color and fineness to wheaten flour. As a *forage crop*, by sowing in drills or broadcast, for early feed, there is no kind of corn so well adapted for milk cows, and none that will yield half the value in stalks or corn.

It can be successfully grown in any State in the Union, from Maine to Texas. I can give the most satisfactory references that the corn is, in every respect, what I represent it to be, and further, I am the only person throughout the country who has this variety of corn. Having secured a quantity, I am now able to fill all orders, for those desirous of testing it.

To any person who will enclose in a letter One Dollar, in stamp or currency, directed to me, I will send, postage paid, sufficient corn to produce enough to plant, the following year, from twenty to thirty acres; also, *directions for planting and cultivation*.

To any person that will get up a club of FIVE, I will send a package gratis.

Give your full name, Post-Office, County and State, written plainly, so that no errors may occur.

Address
M. E. CRANDAL,
May—11* Sandwich, De Kalk Co., Illinois.

PROPOSAL TO ESTABLISH

Sunday School Libraries Free of Cost.

WE OFFER our great Gospel Engraving after Thorwaldsen's CHRIST AND HIS APOSTLES, to Sunday Schools, at a price per hundred which will secure to them, by re-selling the picture at our regular retail price of one dollar each, a sufficient sum to purchase

Three Hundred Volumes.

This is the most popular religious engraving ever published in America, and the Sunday Schools to which we have supplied copies thus far have found no difficulty in disposing of from one to two hundred (and in one instance three hundred) in the space of from twenty to thirty days. Christian parents everywhere seem more especially anxious to possess the picture now that it affords the opportunity of encouraging their children in a good work, and affording them a means of moral and religious instruction.

Address
MAY—11* DAYTON & CO.,
87 Park Row, New York.

HARVESTING Machine Manufacturing Company.

OFFICE, No. 92 BROADWAY,
Opposite Trinity Church, New York.

MANUFACTURERS OF

CLOW'S PATENT

COMBINED REAPER AND MOWER.

ATTENTION!

FARMERS AND DEALERS IN AGRICULTURAL
IMPLEMENTS.

THE above Machine is the invention of DANIEL CLOW, of Janesville, Wisconsin, where a few were built and used for the first time in the harvest of 1859; and having EXCEEDED the expectations of all in the execution of its work, the Company now offer it to the public as possessing *great advantages* to the Farmer:—

1. The Machine being lighter than any other, requires less power in working. *One heavy horse, or a light span of horses*, will work it with ease throughout the season.
2. It is simple in its construction, and *not liable to get out of order*, but should it do so, it is easily repaired.
3. *It is not liable to clog*, and is adapted to work in all kinds of grass, where any Reaper can be used.

Testimonials in its favor might be multiplied to the entire number of Machines yet constructed. The following will suffice:

Capt. WM. MACLOON, of Janesville, Wisconsin, says—

"I used CLOW'S COMBINED MOWER AND REAPER in the last harvest, and unhesitatingly pronounce it *superior to any other Machine* with which I am acquainted. In one instance it cut ten acres of oats in half a day, and I have no doubt with a lively team it would average 20 acres per day. The draught is much lighter than in any other Machine—not more than half; under no circumstances does it require more than an ordinary team."

Every Machine warranted to give entire satisfaction.

For particulars, terms, &c., address to the Company's Office, No. 92 Broadway, New York.

A. G. FISHER, Secretary.

Agents wanted to introduce the Machines, to whom a liberal commission will be paid.

For further particulars, please send for a Descriptive Circular.

ATTENTION SUNDAY SCHOOLS.

BOOKS FOR NOTHING!

SUNDAY SCHOOL Superintendents, Teachers and Scholars, are hereby notified that we propose to sell our magnificent and popular engraving of Thorwaldsen's

CHRIST AND HIS APOSTLES,

at such a price per hundred to Sunday Schools as will enable the children to realize from their sale, at *our own ordinary prices*, he means to purchase

A SUNDAY SCHOOL LIBRARY.

The profit on one hundred copies will secure

One Hundred and Fifty Volumes

of excellent Sunday School Books, and as the picture is in universal demand among Christian families of all denominations, none of these institutions will find any difficulty in disposing of at least that number in the churches to which they belong. One dollar for a superb picture of first-class size, viz., *three feet by two*, is a sum so small in proportion to the actual value of such a beautiful illustration of Gospel History, that parents are glad of an opportunity of supplying their families with such a subject for profitable contemplation, and at the same time affording their children an opportunity of assisting in the formation of a religious library for their own spiritual and mental profit.

DAYTON & CO.,
87 Park Row, New York.

May—31*

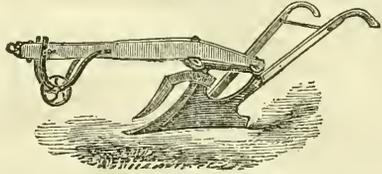
BLOOMINGTON NURSERY, ILL.—Eighty acres. Fruit and Ornamental Trees. Root Grafts, 10,000, \$50. Wilson's Albany Strawberry, 1,000, \$10. &c., &c. See new List. March, 1860.—31*

F. K. PHENIX.

THIRTY AGENTS WANTED.—At the St. Catharines Nurseries, to whom liberal compensation will be given. Apply immediately to
11 C. BEADLE, St. Catharines, C. W.

ROCHESTER AGRICULTURAL WORKS.

A NEW PLOW.



FARMERS, and Dealers in Farming Implements—Your attention is called to KULONSON & HARVEY'S STRAIGHT DRAFT PLOW. The above Plow is commended by all who have tested it, as the *very best in use*.

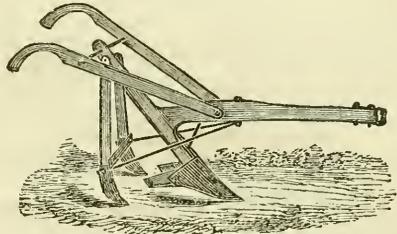
It embraces *new and valuable principles*. Its worth is attested by the fact, that although a new Plow, it has already received the **FIRST PREMIUM** wherever it has been exhibited, viz: at Yates, Schuyler and Ontario Co. Fairs. Also, at the "American Institute, New York City. Also, awarded the *First Premium*, a SILVER MEDAL, at our State Fair, 1859.

The Draft of this Plow has been tested at County and State Fairs, in competition with numberless other Plows, and in every instance proved itself the *lightest draft*.

It is adapted equally well to *two or three horses*, by a simple change of the beam from one side of the standard to the other; and possesses other *valuable points*, which render it altogether the best plow in use.

Price of Plow complete, wood or iron beam, \$12.

HYDE & WRIGHT'S PATENT HORSE HOE OR CULTIVATOR PLOW.

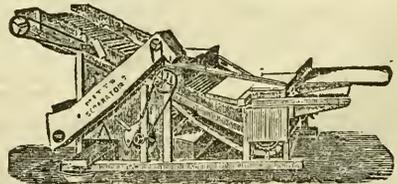


The above *invaluable implement* received the *First Premium* (a SILVER MEDAL) at the *Great National Fair*, held in Chicago, Sept., 1859. The following are some of the advantages this Cultivator has over every other kind now in use:

1. Lightness and durability, being made of the best quality of Steel, highly polished, and the whole implement weighing from 50 to 60 lbs.
2. Adaptation to more kinds of work than any other Cultivator known; being a perfect and thorough Cultivator when used with all the teeth on, leaving the ground even and level, and working nearer the rows than any other Cultivator.
3. By removing the small teeth, and attaching the wings to the shovel, it is the most perfect implement for hilling that can be produced.
4. It works equally well in corn, cotton, or any kind of crop requiring cultivating, and in most cases hand-hoeing can be dispensed with.
5. Its cheapness, considering the many kinds of work to which it can be applied, the farmer having in one implement all that is necessary for cultivating and hilling any kind of crop, or for covering and digging potatoes.

Price, \$8; ground and polished, \$8.50.

PITTS' PREMIUM THRESHING MACHINES,



Double Pinion, and all Iron Horse Powers, are manufactured by me with all the latest improvements, and in the most substantial and perfect manner.

ROCHESTER CUTTING BOX.

All who want a Feed Cutter, adapted *equally well* to the cutting of *all kinds of fodder*, will find my Cutting Box to answer their wants.

ALEXANDER GORDON,
63 South St. Paul Street, Rochester, N. Y.



NANSEMOND SWEET POTATOE PLANTS—For Northern planting. A superior article.
Packed to go Safely Long Distances.
 Prices—400 for \$1, 1,000 for \$2, 5,000 for \$9, 10,000 for \$15, during May and June.
 Send stamp for circular of directions in culture, and experience of growers at the North.

C. B. MURRAY,
 (Late O. S. Murray & Son.)
 Foster's Crossings, Ohio.
 April—21

Flower Seeds by Mail!
Flower Seeds by Mail!
Flower Seeds by Mail!

OUR OWN SELECTION OF

25 VARIETIES FOR \$1.00;
 50 VARIETIES FOR \$2.00;
 100 VARIETIES FOR \$4.00.

Persons ordering either of the above assortments may rely upon a beautiful collection.
 J. M. TRORNBURN & CO.,
 15 John Street, New York.
 May—11

NEW YORK STATE AGRICULTURAL SOCIETY.

PREMIUM ON FARMS, 1860—Premium for best grain farm of not less than 50 acres, under culture,..... \$50 00
 Best grazing and cheese dairy farm, not less than 50 acres, under culture,..... \$50 00
 Best grazing and butter dairy farm, as above,..... \$50 00
 Best cultivated farm, not less than 50 acres, (woodland included),..... \$30 00

Competitors for the premiums on farms are desired to give notice to the Secretary, on or before the 1st of July, of their intention to compete; and some member or members of the Executive Committee will be assigned to visit and examine the farms, and report on the same.
 B. P. JOHNSON, Secretary.
 Agricultural Rooms, Albany, }
 April 12th, 1860. } May—31

NEW EVERGREENS

AND many New DECIDUOUS TREES and SHRUBS, collected from all the best sources abroad, can be furnished to amateurs at reasonable rates.
 The attention of the TRADE is particularly invited to the low prices by the quantity of RARE CONIFEROUS TREES.
 For catalogues, address PARSONS & CO.,
 May, 1860.—21 Flushing, near New York.

RASPBERRIES, &c., CHEAP.

8,000 RASPBERRIES—Red Antwerp, Rustolf, Knevelt's Giant, Franconia and Allen—at \$25 per thousand.
 Dorchester Seedling Blackberries—\$30 per thousand.
 Wilson's Albany Strawberry—\$6 per thousand.
 1,500 Isabella Grapes, at lowest rates.
 JNO. S. GOOLD,
 May—11 Macedon, Wayne Co., N. Y.

COUNTY AGENTS WANTED.—\$50 per month and all expenses paid, to introduce our

New National Double Thread Twenty Dollar Sewing Machine.

The cheapest and the best. For complete instructions and a permanent business, address, with stamp, J. W. HARRIS & CO., Shoe and Leather Exchange, Boston, Mass. May, 1860—21.

A. BROWER'S

Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather, impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. A. BROWER & CO., May—61. 4 Reade Street, New York.

DAVIS' SEEDLING AND PRINCE ALBERT POTATOES at \$2.00 per bushel—single bushel for 30 stamps.

POTATO OATS—Genuine and very fine, per bag of 2½ bushels, \$2.00. A package of Hubbard Squash Seed sent free with each order, if desired. Orders solicited.
 * JOHN A. ROBINSON, Belcher, Washington Co., N. Y.

HUBBARD SQUASH SEED AT WHOLESALE.—1,000 lbs. of Hubbard Squash Seed at Wholesale, very cheap, by the original introducer. My seed is of the purest quality, and my prices are at the lowest rates. Circulars and placards supplied by the quantity, gratis.
 JAMES J. H. GREGORY,
 May, 1860.—11 Marblehead, Mass.

Kedzie's Rain and River Water Filter



Is no longer an experiment. It possesses every practical and scientific arrangement for removing the most impure Rain and River Water free from all decomposed organic matters and gases, taste, color and smell.
 They are PORTABLE, DURABLE, CONVENIENT and CHEAP; can be transported any distance in safety, and are sure to give satisfaction.

Manufactured by
JAMES TERRY & CO.,
 Rochester, N. Y.
 April, 1860.—31

Descriptive circulars sent free.

WHO CAN EQUAL IT?

A GENTLEMAN residing in Jefferson county, N. Y., having sold one of our Three Horse Endless Chain Powers and Combined Thresher and Winnow, wrote to us upon remitting pay for the same, that Mr. Sprague, the purchaser, had threshed 240 bushels of barley in three hours, and that he was doing more than the eight-horse machine.

Mr. V. Belnap, of N. East Erie Co., Pa., says: "Your machines have driven all others out of this section. The first one you sent is thought rather the best. I have threshed 108 bushels of wheat in 2 hours and 59 minutes, without stopping and net a wet hair on my horses. I threshed 140 bushels of oats in 1 hour and 35 minutes, and the oats very damp at that."

This machine was one of our Two Horse Powers and Combined Threshers and Winnowers—the first of four sent into that vicinity. Also, Mr. E. H. Barnard, of Pittsford, Monroe county, N. Y., says of our Two Horse Power Threshers and Winnowers: "The Messrs. Miller threshed 60 bushels of oats in 55 minutes, for four consecutive hours, without extra exertion, and the oats were fed loose, never having been bound."

Our Endless Chain Powers for One, Two and Three Horses, Lever Powers, Combined Threshers and Winnowers, and Threshers with Vibrating Separators, have met with unequalled success wherever introduced.

We also manufacture a Clover Machine, lately much improved, which can not be surpassed for durability or quality and quantity of its work.

We warrant all our machines to suit purchasers. For full particulars and Price List, send for our Descriptive Circular, which will be sent to all applicants.
 Address G. WESTINGHOUSE & CO.
 March, 1860.—31 Agricultural Works, Schenectady, N. Y.

FOR SALE—The 2-year old Short-horned Durham Bull ORMOND got by imported, *Squire Gayme*, 2d, (101.) out of *Fillpink*, 4th, &c., &c., &c., (also purchased of S. THORNTON, of Thornedale.) See *American Herd Book*.

The subscriber offers him for sale on very reasonable terms, having another Bull, not so nearly connected with his stock. Also, one fine Bull Calf, about two months' old, of pure-blood stock.

Any one wishing to purchase may, for pedigree or further particulars, address, A. M. UNDERHILL,
 May—11 Clinton Corners, Dutchess Co., N. Y.

JOHN MERRYMAN,

President of the Maryland State Agricultural Society,
 BREEDER OF

Hereford Cattle, Hampshire Down Sheep & Berkshire Hogs

THE BEST specimens of the above stock, of any age, for sale. Stock delivered in Baltimore, if desired, on Railroad Cars or Boats. Orders must be addressed to JOHN MERRYMAN,
 May—21* Hayfields, near Coekeysville, Baltimore Co., Md.

THOROUGH-BRED Ayrshire Cattle, South-down Sheep, Chester White and Sifton White Hogs, bred and for sale at all times. I now have a lot of fine Chester Pigs, bred from premium stock, which can be suitably mated. Address,
 May—11* H. T. WOLLARD,
 Castine, Darke Co., Ohio.

"JERSEY" CATTLE—Commonly known as "ALDERNEY." SHANGHAI, or TARTAR Sheep for sale. Apply to WILLIAM REDMOND,
 May—31 43 Barelay St., New York.

GEO. F. CURWEN West Haverford, Delaware County, Pa. Breeder of DEVON CATTLE and ESSEX HOGS. May 31

PREMIUM SIX WEEKS' POTATOES.—50 bushels of this variety for sale by CHAS. C. HOLTON. May also be had of J. RAPALJE, Rochester, N. Y. Price \$1. May—11*

PINT AND QUART BERRY BOXES—At \$15 and \$20 per 1,000. Address NICHOLAS HALLOCK,
 May—21* Patenec, Queens, Queens Co., L. I., N. Y.

AGRICULTURAL IMPLEMENTS—A general assortment at manufacturers' prices, for sale by A. LONGETT,
 May—31 84 Cliff Street, New York.

Rare and Beautiful Flowers.

B. K. BLISS, SEEDSMAN AND FLORIST,
Springfield, Massachusetts,

WOULD respectfully inform his friends and patrons that his new Descriptive Catalogue of FLOWER AND VEGETABLE SEEDS is now ready for delivery, and will be mailed to all applicants enclosing a three-cent stamp. Much pains has been taken in preparing it, and it contains, in addition to the information usually found in such lists, many descriptive and cultural notes for the benefit of the amateur and unprofessional florist.

It will embrace all that is new and most desirable among Annuals, Biennials, Perennials, and Green House Seeds, alike suitable for the Flower Garden, Pleasure Grounds, Lawns, Shrubberies, and the Conservatory, as well as many matchless novelties of the highest merit, which have been collected by his European correspondents from the most reliable sources.

Collection of Flower Seeds by Mail, Postpaid.

The following collections have been sent out from his establishment for the past six years, and are now favorably known in every section of the country.

ASSORTMENT No. 1.—Contains twenty choice varieties of Annuals—\$1.00.

ASSORTMENT No. 2.—Contains twenty choice varieties of Biennials and Perennials—\$1.00.

ASSORTMENT No. 3.—Contains ten extra fine varieties of Annuals and Perennials, embracing many of the newest and choicest in cultivation—\$1.00.

ASSORTMENT No. 4.—Contains five very choice varieties selected from Prize Flowers of English Pansies, German Carnation and Picotee Pinks, Verbenas, Truffant's French Asters, Double Hollyhocks—\$1.00.

Any one remitting \$3.00 will receive the four assortments, postage free.

The Seeds contained in the above assortments are of his own selection. Purchasers who prefer to make their selection from the Catalogue will be entitled to a discount proportionate to the quantity ordered.

All orders must be accompanied with the Cash, which can be remitted in current bank bills or postage stamps.

Please address **B. K. BLISS,**
March, 1860.—3t
Springfield, Mass.

NEW BOOK ON GRAPE CULTURE.

BY WILLIAM BRIGHT,

Logan Nursery, Philadelphia, Pa.

JUST PUBLISHED,

BRIGHT'S SINGLE STEM, DWARF AND RENEWAL SYSTEM OF GRAPE CULTURE.

Adapted to the Vineyard, the Grapery, and the Fruiting of Vines in Pots, on Trellises, Arbors, &c.

IN this work full Directions are given for Cultivating and Fruiting Pot Vines; a new system of Pruning for the Vineyard; New method of making Vine Borders; New Management of Cold Grapery; New Views on Fertilizing the Grape.

This is not a compilation of old matter respecting the Vine, but a purely original work, full of new suggestions for planting, pruning, training and fruiting the Grape, under all kinds of culture; drawn from personal experience, and recently confirmed by the opinions of the best Grape-growers in England.

Price of the work, Fifty Cents per single copy. Sent by mail to all parts of the United States and Canada, post paid, on receipt of the price. Postage stamps received in payment.

*A liberal Discount to the Trade.

Address **WILLIAM BRIGHT,**
April—3t
627 Market St., Philadelphia.

MARBLEHEAD DRUMHEAD CABBAGE.

THIS is the most popular Cabbage carried into the Boston markets. It is remarkable for its reliability for heading; under good culture, 95 per cent. will set marketable heads. The heads are remarkably hard and heavy, fine grained and rich flavored.

They offer FIVE DOLLARS for ONE OUNCE of seed of any variety of Drumhead Cabbage that shall equal this in the above characteristics.

A package of seed, post paid, for 25 cents; one pound of seed, post paid, for \$4.00.
April, 1860.—2t
JAMES J. H. GREGORY,
Marblehead, Mass.

THE HUBBARD SQUASH.

THE seed raised of this celebrated Squash, by the original introducer, at 12 cents for a package of 50 seeds—post paid.

Dealers supplied with seed in bulk at the lowest rates. The Hubbard Squash is the sweetest, dryest and richest flavored of all winter squashes, and brings double the prices of the Boston Marrow
April—2t
JAMES J. H. GREGORY,
Marblehead, Mass.

VALUABLE SEEDS!

AGRICULTURISTS AND FARMERS NOTICE !!

1st—THE MUSTANG GRAPE, of Texas. This Grape is a native of Texas, but will grow *finely anywhere*. It bears more fruit than any other vine, which makes the *finest article of Wine*. For preserving, &c., it is unsurpassed.

To those who wish to cultivate, or try it, we will send a large package of the seed for One Dollar, or, if preferred, a packet of Fifty Young Vines, with Roots, fixed so as not to injure or wither, for Two Dollars, by mail to any address.

HUBERT & CO.,
Little Wichita, Clay Co., Texas.

2d—THE "TURKISH FLINT WHEAT." This celebrated Wheat produces *three times* as much as any other Wheat ever sown. The flour is of the finest and sweetest quality—as white as the driven snow.

Enough seed to produce, at the first planting, from 10 to 12 bushels, will be sent in a strong linen sack, by mail, for One Dollar. Address, HUBERT & CO.,
Little Wichita, Clay Co., Texas.

3d—THE "PINE-APPLE PUMPKIN." Every housekeeper should have this delicious vegetable. It is better than any "dried peaches," apples, or anything of the kind, for making pies, puddings, custards, etc., or to eat alone.

A large package of seed sent by mail for One Dollar.
Direct to HUBERT & CO.,
April—4t
Little Wichita, Clay Co., Texas.

Thorough-Bred North Devons

AT PUBLIC AUCTION.

THE subscriber intends holding his Second Public Sale of Devon Cattle on *Wednesday, the 13th day of June* next, when he will offer between 20 and 30 head, males and females, of his own breeding—all Herd-book animals and of superior excellence.

As at his previous sale, each lot will be started at a very low price, and sold *without reserve* to the highest bidder over that amount.

Catalogues containing pedigrees of the animals to be sold, and full particulars as to terms, &c., will be ready by the 15th of April, and will be sent, on application, to all desiring it.

C. S. WAINWRIGHT,
April—3t
The Meadows, Rhinebeck, N. Y.

FLOWER SEEDS BY MAIL.

THE subscriber has for many years past spared no pains or expense in procuring, both in Europe and this country, every variety of Annual Flower Seeds that could be obtained, and after cultivating over one thousand varieties, has selected about one hundred kinds, with a view of including all the most desirable for hardy garden cultivation, a list of which will be sent to any one. And for \$1, THIRTY-THREE KINDS of any on the list will be sent by mail, postage paid.

Garden, Vegetable and Flower Seeds of all kinds have been largely grown by the subscriber for more than thirty years past. He has now nearly one hundred acres devoted to this purpose, and can furnish Seeds of all descriptions, of the choicest kinds and purest quality, at the lowest prices, and in any quantity desired.

G. K. GARRETSON,
April—2t
Flushing, Long Island, N. Y.

TO HORSEMEN.

WELLING'S WORM DIURETIC AND CONDITION POWDERS, made after Veterinary Physicians' recipes, are very efficacious when given to horses suffering from inflammation of the lungs, hooves, worms, surfeit, moulting, or when hide-bound. Testimonials from farmers, city-railroad men, and other owners of horses, with directions for use, may be had on application to SAMUEL G. WELLING, Apothecary, New Rochelle, Westchester county, N. Y. The trade supplied at \$4 per dozen, large boxes of one dozen doses each. Retail price, 50 cents per box.
April, 1860.—3t*

NO. 1 PERUVIAN GUANO—Government brand and weight on every bag;

SUPER-PHOSPHATE OF LIME.

BONE DUST, LAND PLASTER, &c.,

For sale in quantities to suit purchasers at the lowest market prices. Send for a circular.

April, 1860.—3t
A. LONGFETT,
34 Cliff street, New York.

500,000 WILSON'S ALBANY SEEDLING STRAWBERRY—\$4 per 1,000; 50 cts. per 100.

10,000 Hooker Seedling Strawberry, \$10 per 1,000; \$1 50 per 100.
30,000 Lawton Blackberry, very fine, \$30 per 1,000; \$4 per 100; \$3 for 50. For sale by

April—2t
C. L. TWING,
Lansingburgh, N. Y.

FANCY POULTRY, RABBITS, ETC.—Spring Circular now ready—sent free—send for one. Eggs furnished fresh for setting. Address
April—2t
E. S. RALPH, Box 31,
Buffalo, N. Y.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

"A STITCH IN TIME SAVES NINE."

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for lumping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary maitlage, being vastly more adhesive.

"USEFUL IN EVERY HOUSE."

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE

SPALDING'S PREPARED GLUE

SOLD BY STATIONERS

SPALDING'S PREPARED GLUE

SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,

SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE

SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,

SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by

HENRY C. SPALDING & CO.,
48 Cedar Street, New York.

Address Post-Office, Box No. 3,600.

Dec., 1859.—1y

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy, REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to **JAMES G. DUDLEY,** General Western Agent, April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by **JAMES G. DUDLEY,** April, 1860. 93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best Safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent, April, 1860. at 93 Main street, Buffalo, N. Y.

\$30 A WEEK.—FEMALE AGENTS WANTED at home, or to travel, on Salary or Commission, for

"THE WOMAN'S FRIEND,"

a Periodical of pure and practical morality, exclusively for the Female sex, at only 60 cents a year; also for the

"MAMMOTH FAMILY PICTORIAL,"

the largest illustrated Family paper in the world, at only \$1 a year. For "Confidential Terms" to Female Agents, specimen copies, etc., enclose a three-cent stamp to **MARIE LOUISE HANKINS & CO.,** 429 Broadway, New York. April—2t

ALL KINDS OF **AGRICULTURAL BOOKS**—Farmers, Gardeners, Nurserymen, Fruit-Growers, Dairymen, Cattle Dealers, and all persons interested in tilling the soil or adorning their grounds and dwellings, will be supplied with the most complete assortment of Books relating to their business that can be found in the world, by

C. M. SAXTON, BARKER & Co.,

Agricultural Booksellers, and Publishers of The Horticulturist No. 25 Park-row, New York,

Catalogues gratis. Books sent by mail.

AGENTS WANTED.

March, 1860—4t

LAWTON BLACKBERRY.—Permanent, hardy, prolific, large size, and of exquisite flavor, in all climates; the original variety carefully preserved from admixture with seedlings, and the common New-Rochelle Blackberry for sale, in small or large packages, by **WILLIAM LAWTON,** March, 1860.—3t New-Rochelle, N. Y.

RUSSIA OR BASS MATS—Selected expressly for budding and tying. **GUNNY BAGS, TWINES, HAY ROPE, &c.,** suitable for Nurserymen and Farmers, for sale in lots to suit, by **D. W. MANWARING,** Importer, Sept., 1859.—1y* 248 Front Street, New York.

HUBBARD SQUASH—Warranted pure. Packets containing Fifty Seeds will be sent to any address in the Union on receipt of five three-cent stamps. One hundred Seeds for nine three-cent stamps. Please address **B. K. BLISS,** March, 1860.—3t Springfield, Mass

FRESH FRUITS ALL THE YEAR!
THE YEOMANS'
FRUIT BOTTLE!

FOR Utility, Convenience, Economy and Safety is unequalled for preserving Fruits in a fresh state, in any climate, an indefinite time. "Having used these Bottles we find them exceedingly convenient, and just the thing needed."—J. J. THOMAS, in Register of Rural Affairs. For Descriptive and Price Circulars, address the Proprietor at Walworth, Wayne Co., N. Y. May—tf T. G. YEOMANS.

CHOICE ALDERNEY OR JERSEY CATTLE FOR SALE. One Bull, 3 years old, perfectly gentle and a superior stock-getter; one Imported Cow, 7 years old, and two Heifers, 2 years old, fine milkers. All are pure, thorough-bred animals, and each was winner of a first prize at last Fair of American Institute, over several competitors. The cattle can be seen at Fort Washington, on Hudson River Railroad. For further particulars, address JOHN HAYEN, Washington Heights' P. O., N. Y. May—2t*

\$10,000 PAINTING.—A splendid large engraving of Rosa Bonheur's renowned "HORSE FAIR," printed in beautiful oil colors, will be sent, post-paid, to any address for \$1.50, and with the United States Journal one year for \$2. It presents upon the parlor walls all the brilliant effect of a fine oil painting. Ten thousand dollars was paid for the painting, and the lovers of art are enthusiastic in their admiration of this superb copy of it. The New York Observer says: "It is a remarkable reproduction of one of the greatest works of modern art." The Christian Advocate says: "It is a superb production." The New York Independent says: "It preserves, as nearly as possible, every tint, shade and color of the magnificent original." The New York Tribune says: "It is a fine specimen of the new art of lithographic printing in colors." Life Illustrated says: "No less than eighteen different shades of color are made to complete the picture, and we have almost the perfection of art." Agents are selling them by thousands, and some of them say they are "coming money" in the business. More agents are wanted. J. M. EMEISON & CO., No. 37 Park-row, New York.

CONTENTS OF THIS NUMBER.

Notes for the Month..... 137
More Big Pumpkins. Top dressings for Wheat in the Spring 139
Kohl-rabi..... 140
Corn not Injured by late Spring Frosts..... 141
Composition of the Chinese Sugar Cane..... 142
Value of Manure from different kinds of Food..... 143
Pork-fat Sows for Breeders. A Prime lot of Fat Sheep..... 144
Extracts from Correspondence..... 145
Is it Best to Hill Corn, or not?..... 145
Longevity of the Horse. Weather and Crops in Iowa..... 145
How to make Swine Profitable..... 145
Large Gooseberry Bush. Chinese Sugar Cane..... 145
Spirit of the Agricultural Press..... 146
Chili Potatoes. Thick vs. Thin Seeding..... 146
Time of Planting Corn. Corn in Stumpy Fields..... 146
Alsike Clover. Cows can not hold back their Milk..... 146
The Onion Maggot. Timothy on the Prairies..... 146
Wheat at the South. Oats sown with Carrots..... 146
Notes on the April number of the Genesee Farmer..... 147
The Peacock. Potatoes..... 148
Potatoes and Corn..... 149
How to Detect the sex in Domestic Fowls' Eggs..... 149
Breeding and Raising Farm Stock..... 149
Shall agriculture be Taught in our Common Schools?..... 150

HORTICULTURAL DEPARTMENT.

Work in the Garden..... 151
The Delaware Grape..... 152
Germination of Seeds. Renovating old Apple Trees..... 153
Hybrid Perpetual Roses..... 154
American Wine. Cheap and speedy way to set a Grass Plat..... 155
Experimental Gardening—continued..... 156
Cranberries and their Culture..... 156
Best Fruit for Market Purposes. The Cerculio Remedy..... 157

EDITOR'S TABLE.

Items, Notices, &c. Pleuro-pneumonia..... 158
Notes on the Weather..... 159
The Genesee Farmer in Canada..... 159
Inquiries and Answers..... 160
Notices of Books, Pamphlets, &c..... 161

ILLUSTRATIONS.

Original Kohl-Rabi..... 140
Late Green Kohl-Rabi..... 141
The Peacock..... 145
Domestic Fowls' Eggs..... 149
The Delaware Grape..... 152

TO THE FRIENDS OF THE
GENESEE FARMER.
EXTRAORDINARY OFFER!

Subscriptions for the Half Volume.

Desirous of reaching the large number of farmers who do not now take a good monthly agricultural journal, we make the following extraordinary offer: To all who subscribe for the coming half volume of the GENESEE FARMER, previous to the first of June, we will send the June number free.

TERMS FOR THE HALF VOLUME.

We will send the Genesee Farmer for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for \$1, and a copy of our beautiful 25-cent book, the Rural Annual and Horticultural Directory, prepaid by mail to the person getting up the club; eight copies for \$1.50, and a Rural Annual, prepaid by mail, to the person getting up the club; sixteen copies for \$3, and a Rural Annual and an extra copy of the Farmer for the year, or two for the half volume, to the person getting up the club.

All who subscribe before the first of June will receive the June number free.

CASH PREMIUMS FOR AGENTS

Who Get up the Largest Clubs of Subscribers for the Half Volume.

In order to stir up a little emulation among our friends who are disposed to form clubs, and also to reward them for their labor we offer the following liberal list of Cash Premiums:

- 1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 13 1/2 cents each.) before the 15th day of October, 1860.
2. FIFTEEN DOLLARS to the person who shall send us the second highest number, as above.
3. TEN DOLLARS for the third list.
4. NINE DOLLARS for the fourth.
5. EIGHT DOLLARS for the fifth.
6. SEVEN DOLLARS for the sixth.
7. SIX DOLLARS for the seventh.
8. FIVE DOLLARS for the eighth.
9. FOUR DOLLARS for the ninth.
10. THREE DOLLARS for the tenth.
11. TWO DOLLARS for the eleventh.
12. ONE DOLLAR for the twelfth.

Our Agents, and Competitors for the above Premiums will remember that our terms are always IN ADVANCE.

Subscription Money may be sent by mail at my risk and you need not "register" the letters.

Address JOSEPH HARRIS, PUBLISHER AND PROPRIETOR, ROCHESTER, N. Y. May 1, 1860.

THE GENESEE FARMER, A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE, IS PUBLISHED AT ROCHESTER, N. Y., BY JOSEPH HARRIS.

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR Five Copies for \$2; Eight Copies for \$3, together with a Rural Annual and Horticultural Directory to the person getting the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions. Specimen numbers sent free to all applicants. The address of papers can be changed at any time. Papers are sent to the British Provinces at the same rates as the United States. No extra charge for American postage. Subscription money may be sent at the risk of the Publisher JOSEPH HARRIS, Publisher and Proprietor, Rochester, N. Y.

THE Genesee Farmer

AND PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., JUNE, 1860.

No. 6.

DO ANIMALS CONSUME FOOD IN PROPORTION TO THEIR LIVE WEIGHT?

We have always taken the affirmative side of this question, although we are well aware that the opinion of many intelligent farmers is against us. Thus JOHN JOHNSTON, whom we all delight to honor as a farmer of great experience and sagacity, writes to the *Country Gentleman* :

"It takes no more feed to fat a lot of sheep averaging 140 or 150 lbs., than it does the same number averaging only 85 or 90 lbs.; therefore, it is more profitable to feed heavy sheep than light ones."

If Mr. JOHNSTON simply means by this that the same quantity of food will produce more mutton when fed to heavy than to light sheep, we believe he is right. But if he means that a lot of say 20 sheep, averaging 140 or 150 lbs., will eat no more food per day than a lot of 20 sheep averaging 85 or 90 lbs., then we believe he is mistaken.

The most reliable experiments bearing on this question are those of Mr. LAWES. These experiments were made to determine the "comparative fattening properties of some of the most important English breeds of sheep." The breeds selected were the Sussex Down, the Hampshire Down, the Leicester, the Cotswold, and half-bred wethers and half-bred ewes.

The Sussex Down, which was brought to great perfection by the labors of ELLMAN, is a very small sheep, with short and very compact wool. This breed is admirably adapted for upland and scanty pastures, where larger breeds would starve. The mutton commands a higher price in London than that of any other breed.

The Hampshire Down is a larger and coarser breed.

The Leicester, brought to such perfection by BAKEWELL, is, when pure, larger than the Sussex Down, but not quite so large as the Hampshire Down. Contrary to the generally received opinion in this country, it is really a small breed; it yields

a large quantity of long wool, and, in rich pastures, possesses great aptitude to fatten.

The Cotswold is one of the largest breeds of sheep. The wool is very long and of good quality. The mutton is of rather inferior quality, but the Cotswold fattens so rapidly that it has not inappropriately been termed "the poor man's sheep."

The half-breeds used in these experiments were a cross between a Leicester ram and a Sussex ewe.

The sheep for these experiments were selected by good judges, from the best flocks in England. Mr. LAWES says: "Letters were written to breeders of eminence (those being generally selected who had obtained prizes for their sheep), requesting them to select 50 wether sheep, born the same year, and representing fairly the breed required for the experiment. No limit was set upon price. The sheep were sent about the month of September to the farm, and they were kept upon ordinary food until the middle of November. At this time, the sheep were about nine months old, having been lambed about the February preceding."

At the commencement of the experiment in November, the sheep being about nine months old, the 50 Cotswolds weighed on an average, 119½ lbs.; the Hampshire Downs, 113½ lbs.; the Leicesters, 101 lbs.; the half-bred wethers, 95 lbs.; the half-bred ewes, 91 lbs., and the Sussex Downs, 88 lbs. each.

The experiment lasted from five to six months, the sheep being weighed at the end of every four weeks. The quantity of food consumed was accurately ascertained.

The following table shows the average amount of food consumed weekly by each sheep:

	Oilcake.	Hay.	Turnips.
	<i>Lbs. oz.</i>	<i>Lbs. oz.</i>	<i>Lbs. oz.</i>
Cotswold,.....	8 1	6 14	112 4
Hampshire,.....	8	7	106 10
Leicester,.....	5 14	5 9½	83 12
Half-bred wethers,.....	5 14	5 9½	82 14½
Do. ewes,.....	5 9½	5 4¾	78
Sussex,.....	6 3	5 14	79 1

The average rate of increase per head per week was:

Cotswolds.....	3 lbs.	2 1/2 oz.
Hampshire.....	2 "	12 "
Sussex.....	2 "	1 1/4 "
Leicesters.....	2 "	1 "
Half-breed wethers.....	1 "	14 "
Do. ewes.....	1 "	18 1/4 "

By ascertaining how much water there was in the quantity of food consumed by the different breeds, we are enabled to see exactly how much *dry food* was eaten. This was done. Then, by taking the weight of the sheep at the commencement and at the end of the experiment, we are enabled to determine their mean weight. Thus, if a sheep weighed 100 lbs. at the commencement of the experiment and 150 lbs. at the conclusion, we should call its mean weight 125 lbs. Now, if this sheep eat 3 lbs. of dry food per day, we say that the amount of food consumed by 100 lbs. of live weight would be 2.4 lbs. per day. (If 125 lbs. eats 3 lbs., 100 lbs. will eat 2.4 lbs.) Knowing the weight of the sheep, then, at the commencement and at the end of the experiment, and also the quantity of total food consumed (and the exact quantity of dry matter which it contained), we are enabled to calculate how much 100 lbs. of live weight of the different breeds consumed of dry food per head per day. The result was as follows:

Cotswolds.....	2.16 lbs.
Hampshire.....	2.01 "
Sussex.....	2.01 "
Leicesters.....	2.15 "
Half-breed wethers.....	2.02 "
Do. ewes.....	2.03 "

In commenting on these figures, Mr. LAWES remarks: "Although there is a general impression among agriculturists that large sheep eat proportionally less than small sheep, it is evident that *equal weights of sheep consume equal amounts of food.*"

MAPES' "PROGRESSIVE PRIMARIES."

In the June number of the *Genesee Farmer* for last year, we alluded to a new and strange doctrine of Mr. MAPES in regard to what he calls "the Progression of Primaries." He asserts that an atom of potash, or any other element of plants, is of no value as a manure till it has been taken up by a plant and organized; and that the oftener it has been organized or "progressed" in plants or animals the more valuable it becomes as manure. At that time we mentioned facts that clearly disproved the truth of his assertions; but he has never replied to them.

Mr. MAPES is a manufacturer of artificial manures, an agricultural editor, and an advocate of soil-analyses and twenty-five dollar "letters of

advice." The best chemists are now of opinion that soil-analyses are of little practical utility, from the fact that the elements of plants exist in soils in such small quantity that analysis cannot determine the amount with sufficient accuracy to render the results reliable; but on the other hand, these elements exist in manures in so much greater quantity that ordinary analysis is sufficiently accurate to determine precisely their value.

Prof. S. W. JOHNSON has made several analyses of MAPES' manures, and finds them very inferior articles. MAPES, while still advocating soil-analyses, now denies the ability of a chemist to tell from analysis the value of a manure; and in order to sustain this position, he has invented the doctrine of "progressive primaries!" While admitting that chemists can determine the amount of ammonia, phosphate, potash, etc., in a manure, he asserts that they are unable to tell whether these substances have been "progressed" or not, and therefore, he says, the analysis is useless.

If Mr. MAPES' views were confined to his own paper, we should not deem it worth our while to discuss this subject; but a respectable agricultural journal has recently published an account of a visit to MAPES' farm and factory, in which this doctrine is set forth in a manner calculated to lead farmers to think that it may not be altogether destitute of truth. This, then, is our apology for again alluding to a doctrine which every intelligent chemist must deem unworthy of serious consideration.

The article to which we have alluded, after stating MAPES' doctrine, says:

"The question now is, what led to this discovery, and what are the facts which support it? I will endeavor to give them. It is well known that for a number of years Prof. Mapes has been engaged in the manufacture of what is called the superphosphate of lime. This he makes from the phosphate of lime found in bones, by treating it with sulphuric acid, which changes it to a superphosphate. A few years ago, at Dover, New Jersey, was discovered a great amount of the mineral phosphate of lime. The best chemists of the country examined it, and found it to contain 98 per cent. of this material, or purer than it exists in bones. Here was a chance to procure an inexhaustible supply of the very substance chemistry said would make our wheat fields three times as productive as now, at a trifling expense, as well as make a fortune for those who should prepare and sell it. Prof. Mapes had a quantity shipped to his factory, treated it with acid, and experimented with it by the side of his bone phosphate. The result was, after repeated experiments, that while the bone phosphate produced good results, this either produced no result, or a positive injury. Upon analyzing the soil after a crop had been grown, he found the plant had in all cases taken up the bone phosphate, but had left

the mineral phosphate. Eleven ship-loads of it were sent to England, and being held at less per ton than the bone phosphate, it found a ready market, and was applied to the growing crops but gave no increased yield. The next year a much larger amount was shipped, but found no sale, and to-day is wasting on English docks, or is used for ballast on board ships."

A few years since, at the request of an English gentleman who wished to purchase it, we visited this phosphate mine at Dover, N. J. We found that a large shaft had been dug, and considerable money expended in trying to obtain the phosphate; but the operations had been stopped, not because there was no demand for the article, but because it was not found in sufficient quantity to pay for working the mine. The owners of the mine wanted to sell us "shares;" but though we were authorized to purchase the phosphate there was none to be had, and we came to the conclusion that the whole thing was got up by Wall St. speculators. The story of the "inexhaustible supply," the "eleven ship-loads sent to England," and its "wasting to-day on English docks," is a sheer fabrication. If Mr. MAPES will furnish us, either in New York or on any of the "English docks," a mineral phosphate, from Dover or any where else, that contains "98 per cent. of this material," or even 80 per cent., we will take 5,000 tons of it at \$10 per ton. This will be better than using it as "ballast," or letting it lie "wasting on English docks."

The assertion that "repeated experiments" showed that surperphosphate made from bones "produced good results," while that made from mineral phosphate "produced no result, or a positive injury," may be taken for what it is worth. We can only say that we have seen superphosphate, obtained from the mineral phosphate, produce just as good an effect as that made from burnt bones—the crop in either case being about three times as great as when no manure of any kind was used.

The assertion that "upon analyzing the soil after a crop had been grown, he [MAPES,] found that the plant had in all cases taken up the bone phosphate, but had left the mineral phosphate," staggers our credulity. Certainly no process of analysis known to the general chemical world would enable any one to ascertain this fact. Of this there can be no doubt. A crop of wheat of 50 bushels per acre would contain about 80 lbs. of phosphate of lime; and no chemist, by analysis, can tell the difference between two soils, one of which contained 80 lbs. of phosphate more than the other. How Mr. MAPES, then, can tell, by analyzing the soil, that the plant had taken up the bone phosphate but had

rejected the mineral phosphate, we are utterly at a loss to determine. Beside, if the plants grew they obtained all the phosphate they required either from the manure or from the soil; and if, after rejecting the mineral phosphate, they continued to grow, it is evident that the soil contained a sufficient quantity, and that the application either of bone or mineral phosphate was unnecessary. This whole statement, in regard to analyzing the soil, is contradictory and absurd.

THE CULTIVATION OF RUTA BAGAS OR SWEDISH TURNIPS.

We do not believe that either the Swede or the common white turnip will ever be as extensively grown in this country as in Great Britain. Our climate is too dry and hot, and our winters too severe. The best turnip seasons in England are those which are cool and moist; and those which are hot and dry, while highly favorable for the production of wheat, are unfavorable for the growth of the turnip crop. Now, when we consider that the hottest and driest seasons of England are never as hot and dry as our average seasons here, it is evident that this climate is not well adapted for the extensive culture of the turnip family.

In England, too, the winters are so mild that the turnips, on all the light soils, can be eaten off on the land by sheep during the winter; whereas here it is necessary to put them in a cellar for protection. Turnips contain so much water (say white turnips from 90 to 92 per cent., and ruta bagas from 88 to 90 per cent.,) that the labor of thus securing a given quantity of food is very great. A ton of common white turnips does not contain more than 200 lbs. of dry matter, equal perhaps to 300 lbs. of good clover hay. A ton of ruta bagas does not contain more than 240 lbs.; and a ton of mangel wurzel not more than 280 lbs. When we have to house these root crops, then, it is questionable whether their extensive culture as a principal food for stock is profitable.

On the other hand, it may be very profitable to raise an acre or two of roots to give to cattle and sheep in the winter or early spring as a condiment. Many excellent farmers think this is the case; and in Canada especially, nearly all good breeders raise more or less turnips and ruta bagas for their stock.

While our climate is not so well adapted to the production of turnips as that of England, we might raise far better crops than we do by taking even one-half the pains with the crop that is considered indispensable in England. More labor and expense are bestowed in Great Britain on the turnip crop

than on any other in the rotation. The land is made perfectly clean and mellow by repeated plowings, harrowings, etc., and is then heavily manured. The seed is sown in ridges 2½ feet apart, and when in the rough leaf the plants are thinned out by hand hoes to 12 inches apart. In two or three weeks afterward they are gone over again with the hand

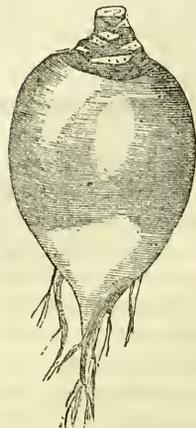


Fig. 1.

hoes, to remove any double ones and to destroy weeds; and the horse hoe is used between the rows as often as needed to destroy the weeds and keep the soil loose and mellow. The quantity of seed sown varies considerably in different parts of England; less than one pound per acre is seldom sown, and we have known as much as four or five pounds sown. This thick seeding was adopted in order to furnish enough plants to secure a crop, even should the fly prove unusually destructive. Since the introduction of superphosphate and guano, this thick seeding is unnecessary. Superphosphate of lime when drilled with the seed, gives the plants such a remarkably vigorous growth that they shoot forward beyond the reach of the fly before it can do the plants much injury. When in the rough leaf, the fly will not injure them. For turnips, there is no manure equal to superphosphate of lime, and unlike Peruvian guano, it can be sown with the seed without injury—or rather with great advantage.

Swede turnips or ruta bagas are sown in this country about the middle of June; the common white turnips from the first of July to the middle of August. The latter sometimes afford a fair crop when sown broadcast on a rye, wheat or barley stubble, with little after culture; but ruta bagas should always be sown in rows, and thinned out and hoed. It is vain to expect a crop if this is neglected. Sow thick enough to furnish plants for the fly—say from one to two pounds of seed per acre.

We annex cuts of the most popular varieties of

Swede turnips grown in England. Fig. 1 is the *Common Purple-top Swede*. It is an old variety, very solid, hardy, and not apt to run to seed—an admirable quality, especially in this country. Fig. 2 is *Skirving's Improved Purple-top Swede*, a very large and free grower, producing immense crops on heavily manured land. It is, however, somewhat liable to run to seed, and contains more water than any other variety we have analyzed. It is perhaps the most popular kind grown in England. Fig. 3

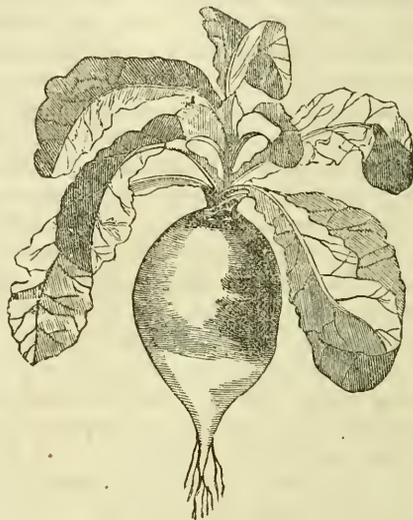


Fig. 3.

is *Laing's Improved Purple-top Swede*. Its cabbage-like leaves, by their horizontal growth, cover the ground and check the growth of weeds. In point of shape, hardness and quality, it is superior to all other varieties. It grows late in the fall, and is not liable to run to seed.

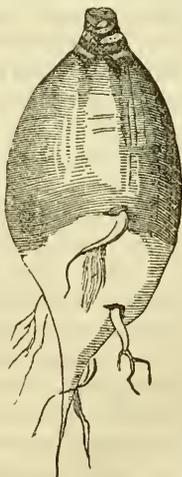


Fig. 2.

PLANTS ON AN ACRE.—Plants a foot apart, each way, would give 43,560 on an acre—

1½ feet.....	19,350	1½ feet.....	302
2 feet.....	10,890	15 feet.....	198
2½ feet.....	6,969	18 feet.....	134
3 feet.....	4,840	20 feet.....	108
3½ feet.....	3,550	23 feet.....	90
4 feet.....	2,722	25 feet.....	69
5 feet.....	1,742	30 feet.....	48
6 feet.....	1,210	35 feet.....	35
8 feet.....	68	40 feet.....	27
10 feet.....	435	45 feet.....	21

GOOD VS. POOR DAIRY COWS.—A recent writer says: "A good dairy cow, if well kept, should pay her keeping and clear her body every year; and a poor one will do neither. And in the present depreciated state of stock, a great part do not pay their keeping." He claims it all comes of selling the best calves—of failing to breed for a purpose and studying the science of breeding, which is true and lamentable.



John Lindley

DR. JOHN LINDLEY.

WE promised in our January number to give occasional sketches, accompanied with portraits, of some of the most eminent agriculturists, both European and American. The first of the series was that of THOMAS BATES. We think it advisable to extend our original plan so as to embrace distinguished horticulturists.

This month we give a portrait of Dr. JOHN LINDLEY, the celebrated botanist, and author of many valuable works connected with horticulture. Our facts are mainly derived from the London *Cottage Gardener*.

DR. LINDLEY was born at Catton, near Norwich, England, where his father carried on the business of a nurseryman and seedsman. His early life was not distinguished by anything remarkable. Having

obtained the rudiments of his education in his native country, he went to France to prosecute the more advanced branches.

In consequence of reverses sustained by his father in his business pursuits, he was early thrown upon his own resources. The first notice he attracted in the world of science was in consequence of a controversy with Sir JAMES SMITH, the President of the Linnean Society. This came to the notice of Sir JOSEPH BANKS, who, siding with Mr. LINDLEY, and appreciating his controversial abilities, used his influence to get him employed by the Horticultural Society—who, being determined to organize an extensive botanical garden, arranged in 1821 to take one at Chiswick; and in 1822, Mr. LINDLEY was appointed assistant Secretary of the Society. In that office he had the superintendence of the collection of plants, besides other duties

nected with the garden, and also keeping all accounts and giving minutes of reports addressed to the Society. He had previously published the works, *Rosarum Monographia*, and *Synopsis of the British Flora*, which had appeared in 1820.

In 1826, he assumed the editorship of the *Botanical Register*, and the sound knowledge he exhibited in these three works obtained for him the chair of Botany in the University of London, from which, as Professor, he delivered his Introductory Lecture in April, 1829. In this he boldly made a stand in favor of the Natural System of Botany, and announced his intention of adopting it as the basis of instruction. As a lecturer, he was among the best that ever occupied that chair: his manner was free and conversational; his matter excellent and methodically arranged.

In 1832, the degree of Doctor of Philosophy was granted him by a German University. In 1838, he became Secretary of the London Horticultural Society, a post which he has held to within a year or two past, when he was elected Vice-President, with Prince ALBERT, President.

In 1841, in conjunction with Mr. PAXTON and Mr. DILKE, he founded the *Gardener's Chronicle*, now so widely known both in Europe and America as the highest authority on all subjects connected with horticulture. Over this he continues to preside. The same year he was made Professor of Botany at the Royal Institution.

Dr. LINDLEY has published many valuable works connected with Horticulture, of which a bare enumeration, in addition to those already given, will be all we can afford in our pages, arranged in the order in which they appeared.

NIXUS Plantarium, Flora Medica, Sertum Orchidaceum, Ladies' Botany, School Botany, Theory and Practice of Horticulture, Elements of Botany; and in conjunction with Mr. HUTTON, The Fossil Flora of Great Britain, The Vegetable Kingdom.

Here we must close for want of further materials; and we do so with the expression of a hope that he may long live to benefit coming generations by his knowledge of the important science of Horticulture.

HENS EATING THEIR EGGS.—S. E. TODD says in the *Boston Cultivator*, that hens can be prevented from eating their eggs, when addicted to the habit, by making their nests in nail-kegs, half filled with straw. This furnishes a secret place for laying, but too confined to allow their eating their eggs while on the nest, and too far down to allow of their reaching them from the top of the keg.

Very good; but how are we to induce the hens to lay in the nail-keg?

IMPROVED STOCK IN CALIFORNIA.

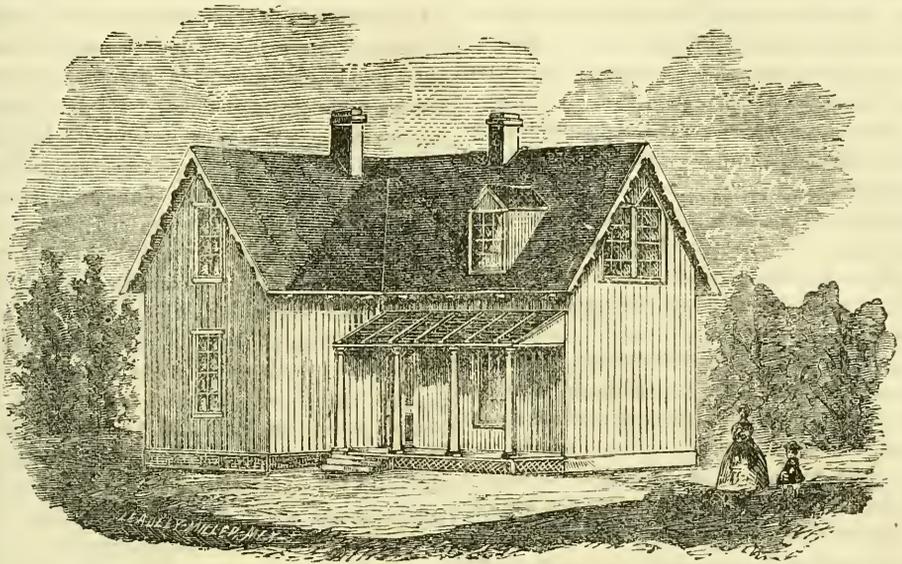
THE farmers in California have shown most commendable enterprise in importing improved breeds of horses, cattle and sheep from the Atlantic States. In view of these facts, the *California Farmer* says: "We prophecy that in coming years California will export blood stock to the old States, and to Europe too." Rather ambitious that!

The California *Culturist* has an article on the same subject, taking far more moderate views of the future progress of stock-breeding in the Golden State. It states that while the mild and equitable climate of California—free from the extremes of heat and cold, and particularly the latter—can not but prove highly favorable to the fullest development of animal life in its most perfect forms, yet "breeders will find that, upon the dried herbage alone of our summer and winter pastures, the high bred and high fed Durhams of the Atlantic States and England will deteriorate in more than one of their prime qualities; and what is true of the effect of their food here in summer applies with still greater force to the winter and spring, when almost all the animal now gets to sustain nature alive is a meager bite of unwholesome, innutritious weeds." Already, it says, the complaint is heard that dairy cows, of choice breeds, are rapidly losing their milking qualities.

We like the remarks of the *Culturist*; and what is true of California is true everywhere: before we can hope to excel in the production of the highest grade of stock, we must give special attention to the production of succulent and nutritious food, and provide shelter from the inclemencies of the season.

FALL FEEDING GRASS LAND BENEFICIAL.—A writer in the *Boston Cultivator* says he had two meadows. On one he turned his cattle shortly after mowing, each year, and fed it off close to the ground. The other having some young trees on a portion of it, the cattle were kept out, and the hay growth allowed to rot on the ground. The hay crop on the former continued to improve in quality and quantity each succeeding year till last year, when the crop was light, while on the latter it decreased year by year, and last year it would scarcely pay the expense of cutting.

POTATOES IN BERMUDA.—Last year there were exported from the Bermudas (West Indies,) 38,46 barrels of potatoes, 27,758 barrels of which were sent to New York. This year the crop is almost an entire failure—owing, it is thought, to the unusually warm weather in the winter.

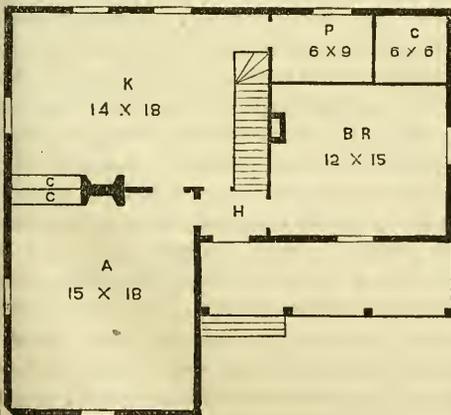


DESIGN FOR A SMALL FARM-HOUSE.

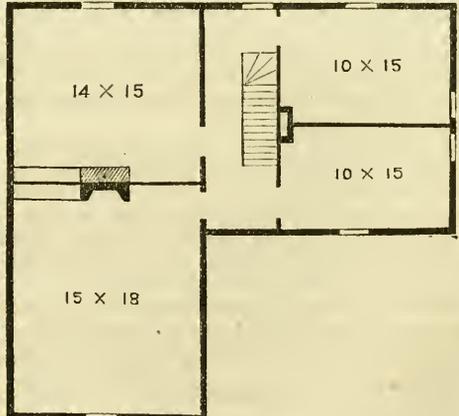
DESIGN FOR A SMALL FARM-HOUSE.

The above design is for a neat, but not expensive farm-house, to be built of stone, brick or wood, with a cellar under that portion of it where the staircase, bed-room and pantry are, 20 feet square—the stairs leading to it being under the main staircase, and entered from the kitchen.

Second floor—four bed-rooms. There may be a fire place in the back bed-room, or the chimney may be carried up plain with a stove-pipe hole, and with a stone in the floor; the room may be warmed by the stove-pipe from the kitchen stove. A fire-place is designed in the kitchen for summer use, if desired.



MAIN FLOOR.



SECOND FLOOR.

The main portion of the house, where the parlor and kitchen are, will be 34 by 20 feet, if built of stone or brick, and 33 by 19 if of wood; the height of walls 14 feet to the plates—lower rooms, 10 feet. A, parlor; K, kitchen; H, entrance, 6 by 5; BR, bed-room; P, pantry; C, closet, entered from bed-room.

The large front room up-stairs would make a pleasant sitting-room, if desired. Our engraver has made a mistake in putting the two principal windows only two panes of glass wide, instead of three: and the verandah should have a curved roof. The ends of the rafters are trimmed and brought down to appear as brackets, and the ornamental

work at the eaves may be sawn out of $1\frac{1}{2}$ inch plank, at small expense. There must be a dormer window at the back, opposite the head of stairs, to give light to them and the landing above, as the stairs are designed to be closed in at both sides—and with a door at the bottom if considered advisable, corresponding with the door from the hall into the kitchen.

The expense of such a building, erected of stone or brick, would vary from \$1200 to \$1400, according to the price of materials; and if of wood, it would be much less where lumber was abundant—say about \$800.

MARKING SHEEP.—Mr. N. WRIGHT, of Hornellsville, N. Y., gives us his method of marking sheep: Take four parts tar, one part tallow, and from one to two parts by measure of lampblack; warm, and mix together thoroughly. Then take the marker, (a letter or figure, made either of wood or iron, with a handle to it,) dip it into the mixture and put it on the sheep while warm. The mixture should be warm enough to be thin, otherwise too much will stick to the marker, and it will run and smear the sheep.

MARSH HAY—WILL IT PAY TO SECURE IT?

EDS. GENESEE FARMER:—There is a wide difference in the value of marsh hay. Hay from very many marshes is excellent food for stock, while from others it is only valuable for bedding, and increasing the worth of the compost heap. Marsh hay, like any other product grown upon wet, undrained land, has not a proportionate value with upland hay, weight considered, as it grows rank, close and woody, and is not so nutritious as hay produced on dry land.

We think it will pay to secure marsh hay under favorable circumstances: say it is grown upon the farm, or in close proximity, as is the case frequently here at the west. If marsh hay is not secured, it is a total loss; as it is not needed for manure where it grows, and only adds to the miasma and disease-propagating properties of the atmosphere.

If the marsh can be easily mown—*i. e.*, presents no natural, serious obstacles to the performance of the labor—we should consider it fully worth saving.

La Salle Co., Ill.

NOTT A. TUBBS.

BUGS AND CUCUMBERS.—Mr. BERGEN, of Long Island, recently stated that some farmers in his neighborhood plant as much as ten acres each of cucumbers, and that the way they save them from bugs, is to use plenty of seed at first, and then at four or five successive periods they plant on a new side of the hill, a lot more of seed. This supplies an abundance of young plants for the bugs to feed on, and they leave the stronger growing plants untouched. When well out of the way of bugs, the surplus plants are dug up with the hoe.—*Homestead.*

EXTRACTS FROM CORRESPONDENCE.

IS IT BEST TO HILL CORN, OR NOT?—W. O. BUELL, of Perth, C. W., says: "The cultivator should examine into the character of his corn soil, and regulate his operations accordingly. He will observe that less water or rain is requisite to feed his corn crop than some others, and that a superabundance of water will be detrimental. Once well drained, deep tilled, and somewhat open and porous soil, we believe it matters but little whether the corn be hilled or not. Hilling it will stir the land, and aid the stalks to stand firmer; but as to the food and drink for the plant, it will readily find both in such a soil as we describe, if it is to be had. But the case will be very different in undrained and shallow plowed land, with a hard or clayey bottom. If the seed lie near this hard bottom, the subsequent roots will be encased during the wet season with a weakened and watery source of nourishment, and in the dry season with a dried up and comparatively unproductive one. The plant will struggle on, but more depends on "good luck" than on "good management." We should approve of hilling in such a case for more than one reason. The stirring of the soil above; the gathering of a supply of food about the stalk, which would be washed down from time to time; the retention of moisture, and its increased amount taken from the atmosphere by the heaped-up soil in dry seasons—in short, the tillage done *overhead* which should be done *below*, would all aid the crop, and go far to recompense it for the previous bad treatment, and induce a growth nearer the original surface of the land, and *farther* from the neglected region in the neighborhood of the seed bed. The practice of hilling corn may well be supposed to have originated out of a necessity that arose to make up afterward for a bad preparation of the land for successfully raising a good crop. It is therefore a *useful* and beneficial practice in such cases, as well as a necessary one; and keeping in view the character of our agriculture in a new country, where land is plenty and labor dear, and the improbability of a high state of preparation of the soil by most of our farmers for many years to come, it is a practice which must continue, and recommends itself in a great majority of cases. I is not to be wondered at, that in some few instances good crops have been raised without hilling but they do not, in our opinion, prove that it will do, as a general thing, to omit it. In a sandy or very light soil, hilling will aid the plant; mechanically speaking, it will support it, and will doubtless retain and increase the moisture in dry seasons.

It will afford a protection against the sun's rays, and, as we believe, decrease the evaporation. Upon the whole, we hence say, hill the corn."

"HOW DEEP SHOULD WE PLOW?"—In reply to this question, W. RENO, of Penn., says: "If it should be a light, sandy soil, on an open, gravelly subsoil, then shallow flat plowing would be the best—say four or five inches deep, and eight or ten wide, laid over level. But if it be a heavy clay soil, on a subsoil of the same, then deep plowing would be much the best—say from eight to twelve inches. This should not be laid level as in the former, but with one edge elevated and lying partially on the previous furrow; so that in time of much rain, the water may lie under the broken soil and pass off, leaving it in good condition. And if the soil be naturally wet, then it will be best to loosen the subsoil as deep as possible with a subsoil plow, that the surplus water may pass off through drains that we may suppose have already been made in soils of this nature—for if they have not, they should be."

W. H. SNYDER, of New Jersey, says: "There is a prevailing opinion in this neighborhood that corn ground should be plowed shallower than for other crops."

J. A. S., of Paris, C. W., says, instead of plowing up five or six inches of the raw subsoil at once, "rather bring up an inch at a time, giving the land a good dressing of manure, and thoroughly mix with the plow, the harrow, and the cultivator—repeating the operation at every successive breaking-up, until your farm has a uniform soil of a rich brown color, to the depth of at least a foot for grain and grass, and eighteen inches for carrots, mangolds, etc. Such a soil and such a depth will withstand a drouth much better than a shallow one; be easier and earlier worked, and will make glad the heart of the husbandman by a crop double in quantity and better in quality than that of the shiftless man who scratches to the depth of three or four inches."

PEA STRAW.—S. KING, of Canada, considers pea straw, "cut somewhat green and cured without rain, excellent fodder for making milk or beef. The cattle eat it eagerly and thrive well on it."

W. R., of Cobourg, C. W., says: "Pea straw, cut a little green and well got in, is good food, especially for horses and sheep. We have heard of a worthy old farmer who was noted for having fine, sleek horses. When asked how he fed them, he declared they got nothing but pea straw—and that not half thrashed either."

STREAMS IN PASTURE LAND.—H. B., of Ohio, says: "Those who are so fortunate as to have small streams running through their places, should fix the precise position of their pasture fields here, upon both sides of the stream; because the irregularity of the banks will not admit of very profitable cultivation, and if sodded with blue-grass will improve every year. Trees should be left standing for shading the cattle in summer, and in some degree for protection from the wind in the winter. A field laid out in this manner is so convenient, that scarcely any but those who have tried the experiment are aware of its advantages. Streams of this kind are almost invaluable, as they supply water constantly for the animals—which is much better than watering them regularly, or irregularly, as it may happen; in which cases their thirst may sometimes become so great that they will drink more than is for their benefit, and will distend their stomachs to an extent which is injurious. It is better always for stock to be allowed to drink when their inclination prompts, and to always have water before them; they would then drink no more than they really need."

CLEANING CARROTS.—A "Tenant Farmer" of Canada says he drills his carrots two feet apart, using from two to three lbs. of seed per acre. As soon as the carrots fairly make their appearance, he runs a horse hoe between the rows as close as possible without disturbing the carrots. Then follow with the hand hoe, walking backward, so as not to tread on the newly cut weeds, and leaving not more than an inch of unhoed ground on each side of the row. This strip of weeds may be allowed to remain till the carrots are thinned. If the cultivator is run between the rows in the mean time, it will be an advantage. Thinning is rather a tedious process, as it has to be done by hand. He leaves the Orange and Red carrots six inches apart, and the White or Belgian from six to ten inches apart in the rows. After this he goes over them again, cutting out weeds and thinning any carrots that may have been left double. An occasional hand hoeing afterward is an advantage.

CHINESE SUGAR CANE FOR FODDER.—HIRAM REED, of Indiana, says: "I have tried the Chinese Sugar Cane, to some extent, as a fodder crop, and I am sure horses and cattle cannot get anything they like better, and do better on. I have given horses Sugar Cane and good clover hay at the same time, and they will always eat the cane first. I am of opinion that it will pay to plant a few acres of Sugar Cane as feed for stock."

SOME HINTS ON BUTTER MAKING.—We extract the following from the letter of a lady correspondent: "It is impossible to make good butter from poor cream. Milk should never stand more than sixty hours without skimming. No cream will rise after the milk becomes thickened. If a pan of milk is disturbed, the cream on it will spoil sooner than otherwise, and should be removed at least twelve hours earlier. If the cream of one pan that has stood too long is mixed with the rest in the cream jar, it will spoil the whole churning. The cream jar should be washed out clean every churning time before being again used. The cream in the jar should be thoroughly stirred every time fresh cream is added, and care taken not to spatter the sides of the jar with cream. It is important that the temperature of the cream should not be too high before churning, and in warm weather it is a good plan to keep the cream jar standing to half its depth, or more, in cold water. It is better to occupy one hour in churning than only fifteen minutes. A cellar may be kept cool by closing the doors and windows during the day and opening them at night.

"A cloth put over butter when packed spoils its flavor. The great requisites in making butter are cleanliness of all vessels used, thoroughness in working the butter, and the use of fine salt, of the purest and best quality."

AFFAIRS IN IOWA—B. H. W., Brighton, Iowa, writes: "It will be no news to say that hard times are here in the most chronic form. Three poor crop years in succession have not helped us any. Two or three good years, with remunerative prices, would relieve us. Three poor corn crops have nearly exterminated hogs in Iowa, and it will be some time before we again become stocked with them. Our farmers are at work, with coats off and sleeves rolled up, determined to retrieve if possible. So far, we have had the finest March I ever saw: not one stormy day, and the thermometer has been as high as 70° more than once, and but once below 20°. Hardly a day passes," he says, "but some eastern man comes along, offering some patent invention in fencing, draining, etc., which he would have us believe would make our fortunes, if we purchased. Please advise all such to stay at home till we can get our debts paid."

WIDE TIRE.—J. C. ADAMS, of Allegany Co., N. Y., says the truck wagon, with tires five inches wide and three-eighths thick, is rapidly coming into use on the farm. It is low and handy to load, and does not cut in on soft land.

STACKING WHEAT IN THE FIELD.—One of our Long Island correspondents alludes to a method, common, he says, in his neighborhood, of temporarily stacking wheat in the field, putting seventy-five sheaves in a stack. Last year his wheat stood in these large shocks, or stacks, as he calls them, from the 12th of July to the 11th of August, "and then was carted to the barn in excellent order, without any previous airing or drying—not a sheaf having been moved for that purpose." We should be glad of a more detailed description of the method of placing the sheaves, etc.

FARMERS SHOULD PRODUCE THEIR OWN FERTILIZERS. B. F. B., of Pughtown, Pa., says: "Every farm, however small, can with the aid of lime and plaster, and proper care and management, produce manure enough to keep up its fertility and improve its soil. By careful farming, many of the old worn-out farms in Eastern Pennsylvania have been restored to productiveness, without the aid of any of the numerous patent fertilizers, which, when tried, have proved a failure. Bones are often ground and used in a raw state, particularly to grapes, with advantage."

HOW TO GET EARLY WHEAT.—W. E. ANTRY, of Campbell Co., Ky., says he selected from his growing wheat the earliest and largest heads, sowed this seed separately, and the produce the next harvest was "three weeks earlier than any other wheat of the same kind sown at the same time." He thinks by continuing this process he shall be able to get a very early variety. He is of opinion that seed wheat should be brought from the North rather than the South.

DWARF PEAR TREES THAT HAVE BEEN NEGLECTED. C. C. WILSON says: "If the trees were set out where the ground cannot be plowed, they should be spaded around as far as the roots extend, and manured with chip or other fine manure, and watered as often as can be done with the soap-suds and other waste water of the kitchen, which should be all saved for this purpose. Be sure to keep the weeds and grass down by hoeing around them occasionally; as these, instead of shading the ground and keeping it moist, as some think, rob the ground of moisture that the tree would otherwise appropriate to its own use. A few years ago, by following this course, I obtained a growth of two feet in a single season, upon a tree that had been set out in a by-place, and been neglected."

"FARMERS MUST RAISE MORE ROOTS," says a correspondent, "and then they will need less hay; their stock will be fatter, their manure richer, their farms more productive, and themselves more wealthy."

SPIRIT OF THE AGRICULTURAL PRESS.

FATTENING POULTRY.—The London *Poultry Chronicle* says: "However good your feeding may be, yet while your fowls are at liberty, the food all turns to hard muscle and growth, instead of fat and soft flesh. Exercise is very good for health, but it is not a fattening process. Shut up the fowls you wish to fatten in a small coop, allowing them just room to stand and change their position, but no more. Place the coop in a quiet and rather dark place. Let there be a board in the front on which food may be placed, and let them be fed three times per day with ground oats slaked with milk, to such consistence that when placed on the board it will not run off. Allowing this to be the test, it should be as liquid as possible. Let them have three times per day as much as they can eat, and when not feeding let them be covered with mats or sacking. If they are doing well they will heat and steam, and the heat should be perceptible to the hand when it is put in. This should fatten them in ten days."

HEAVY RAIN STORM IN OHIO.—A correspondent of the *Ohio Cultivator* says: "I was coming from Cadiz the 10th of the 4th mo., and got within half a mile of home, when black clouds and some rain admonished me to take shelter. I hitched Fip to the fence and ran into a neighbor's house. The rain fell very fast, and in a few minutes I saw the boards that formed the plank road rushing down on the turbid waters, and I had to wade knee-deep through the foaming tide to give Fip's rein a clip with my knife, at the same time admonishing her to take care of herself, while I did the same by a speedy retreat. The mare found the highest and most protected point in the road, where she remained quiet until the flood abated. I believe it is conceded on all hands that rather more water was around about Short Creek at 4 o'clock P. M., on the 10th of this month, than was ever known before. No lives lost, but many narrow escapes. It will be a tight squeeze if the company repairs the plank road."

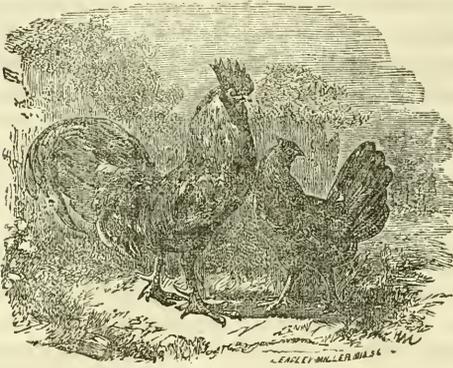
CHANGING PASTURES.—A writer in the *Boston Cultivator* says: In many pastures, where the water is so situated as to allow of it, dividing them into lots, and changing the stock in them alternately, so as to give the grass an opportunity to get a good growth, would enable them to keep a third more stock.

The London *Poultry Chronicle* says "All Cochinchinas lay small eggs compared to their size."

"NATURE'S MODE."—A correspondent of the *Country Gentleman* well observes: "I can hardly read an agricultural paper without seeing 'nature's mode' appealed to and recommended. It is time this argument was discarded. The very fact that LABOR is ordained, shows that *nature's mode*—which means the practice of neglect and non-interference by the hand of man, when strictly analysed—was never intended by the Creator. Even in paradise, man was to 'dress and keep' the garden. 'Nature's mode' was afterward pointed out in the growth of 'thorns and thistles.' I have seen fields of corn raised after this mode, the corn and weeds being nearly of equal height, and the product five bushels of green corn per acre. I have seen orchards cultivated according to nature's mode—full of suckers and brush. Grapes are frequently raised by this mode, and are two weeks later, smaller in quantity, and incomparably inferior in flavor to those obtained by the best artificial pruning and culture. Nature must, in any case, be improved, modified, changed, and heavily mixed with labor and skill, and often entirely thrown aside, in successful culture."

POTATOES IN CALIFORNIA.—The editor of the *California Farmer* says: "During a little trip in Alameda County, we went over the ground that was famous in 1853 for 'big 'taters and plenty of them,' and we found the land not run out yet. Such crops and such potatoes would make 'Down Easters' stare. * * Mr. HANKIN very kindly selected us some very pretty samples of *small* ones, which we find upon weighing are three pounds and upwards." He mentions another farmer in the same county who raised last year 4,000 sacks, about 117 lbs. each, on thirty acres; and "a better quality," he says, "was never sent to market." This is about 266 bushels per acre—a good crop, certainly, but not enough to make a "Down Easter" stare so very much after all.

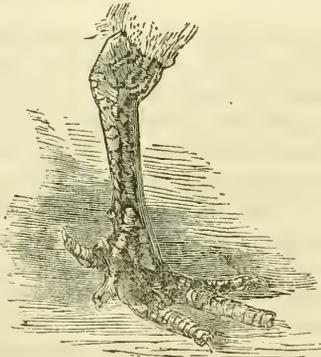
AIR DRAINS.—L. H. LUCKER, of the *Country Gentleman*, speaking of a visit to a farmer while in England, says: Mr. C.'s experience on heavy clay lands, leads him to estimate very highly the importance of having a line of tile at the head of the field, connecting the upper ends of the lateral drains, and open at both ends for the admission of air. He thought the circulation of air thus given through the underground channels on stiff lands of great efficiency in supplying the place of the abundant pores found in a more open and gravelly soil, and also in admitting atmospheric air to the superincumbent soil.



THE DORKING FOWL.

This justly celebrated breed of fowls is of very ancient origin, having been recorded in some ancient poultry books more than two thousand years ago. They are remarkable as having five toes on their feet, as shown in our cut.

They are highly prized in England, both as layers and sitters, and also for the quality of their flesh. They have both single and double combs. Their color varies, but the speckled grays are preferred; there is also a white variety, which have double combs.



FOOT OF A DORKING.

This breed is liable to degenerate if bred in and in too closely, and the male bird should be changed every year, if it is desired to keep up the stock to perfection. They have been imported to this country, and much used to cross with and improve our common barn-yard fowl; but it is yet rare to meet with a Dorking on the farms in this country, of pure and uncontaminated blood.

For general purposes, we think this breed the best of the whole poultry tribe; and they are also hardy, and able to stand our cold winters. *

LICE ON FOWLS.

The *Valley Farmer* says strict cleanliness about the roosts and nests will always prevent hens from becoming lousy. The droppings under the hens should be removed frequently, the nests often renewed, and air slacked lime and ashes scattered around the floors and roosts. Boxes of dry ashes and lime should always be kept under cover where

the fowls can have constant access to them, that they may wallow in them at pleasure.

But when they have become lousy, the roosts should be thoroughly swept and cleaned, the straw and litter from the nests entirely removed, and the wood-work and roost-poles of the house white-washed with fresh slacked lime, into which a quantity of sulphur or tobacco has been mixed. A day or two before this operation, the fowls should be fed with coarse corn meal wet with milk or water, into which a quantity of sulphur has been mixed. Feed with this several days; it may then be omitted for a few days, and repeated again at intervals of three or four days, and continued in this way until all the nits have hatched, when the insects will drop off and leave the fowls. Thorough cleanliness after this, will generally exterminate them. Fowls are always poor and unthrifty, and setting hens are seldom successful in hatching their eggs, when annoyed with vermin; a little care is all that is necessary to prevent it.

THE POULTRY GUIDE.

EDS. GENESEE FARMER:—A person about to commence keeping poultry, may be compared to one just landed in a strange city. Ignorant of every thing, he asks for a trustworthy guide. We will recommend a cheap and infallible one—it is Nature. Choose then your stock well formed, healthy, and young; but as in most well-assorted unions, the male should be older than his partners. Seeing there are no laws among fowls against polygamy, we will mention the number of wives which should be right. Following our guide, nature, we say let them take their own course. Let your hens enjoy all the honors of maternity; let them be blessed with their "sweet cares, all other joys so far above," that attend a mother's life. As you "can not eat your pudding and have it too," so you cannot compel a hen to do more than she is naturally fitted to accomplish; and she must rest. Strange to say, the period of sitting, and the infancy of her progeny, are the rest of the hen, and cause her no sleepless nights. But if, in defiance of this sound provision, you prevent her from sitting, while it is true you will cause her to lay again, you will only be a temporary gainer, as the strain on the system will wear it out prematurely. She would have fulfilled her duties punctually, and to the last have been useful in her vocation; but being forced to unhealthy exertion when young, her old age will be sterile and premature.

The cure for the gout is said to be "to live on half a crown a day and to earn it." Exercise produces or sharpens appetite, and imparts a relish to the plainest food. We never knew whether to laugh or to be angry when we see an obese dog, slowly moving at the most snail-like pace, following, or rather hindering the progress of a good old gentleman or lady. They like to see the dear thing fat, and even cookery is taxed to please the poor thing's palate. How often have we seen the walking-stick of the one, or the parasol of the other, brought into requisition to defend the poor useless being from the approach of some other dog, whose only advantage was, that he was sparingly and properly fed; consequently, it was cheerful and full of health and spirits.

Now, fowls improperly fed, are in the same predicament. They become over-fat, indifferent to exercise, and useless. Their food should be simple and regular, and, keeping our guide in view, it should be so given as to approach as near as possible to a state of nature. Let it be scattered about, so that they shall be unable to fill their crops in a few minutes. A meal, to be hearty, should be moderate in quantity, and eaten slowly. Follow this out with your fowls, and do not, by unnatural temptations and indulgences, make them, like the dog, "dear, fat things." Let them leave off with an appetite.

HATCHING.—When the determination of the hen to sit becomes fixed—there is no need to indulge the first faint indications immediately—let her have the nest she has selected, well cleaned and filled with fresh straw. The number of eggs to be given to her will depend upon the season, and upon their and her own sire. The best plan is not to be too greedy. The number of chickens hatched is often in inverse ratio to the number of eggs set; we have known only five chickens to be obtained out of fifteen eggs. Hens will, in general, cover from eleven to thirteen eggs laid by themselves.

Three weeks is the period of incubation of the common hen. Sometimes, when she does not sit close for the first day or two, or in early spring, it will be some hours longer. More rarely in this climate, when the hen is assiduous and the weather is hot, the time will be a trifle shorter. But what are we to do with the newly hatched chicks? is a natural question. Let them remain quiet with their mother twelve or twenty-four hours, to gain strength from the warmth of their mother. Then, with their mother, place them in a roomy, boarded coop, in a dry, sunny spot, in a sheltered position, is the best for them during the first month. As to food, let them have some dry crumbs of bread, and hard boiled egg, chopped fine for the first few days; then coarse ground corn, we have found to agree well with them. Fine meal made into paste, and fed raw, is not good for them. Many chicks and young turkeys have suffered from the effects of that kind of food; but when boiled, it will not injure them.

C. N. BEMENT.

MARKING SHEEP.

EDS. GENESEE FARMER:—In your issue for February, I notice an inquiry of "J. S., Laurel, Frankin Co., Ind.," in regard to marking sheep, "so as to know the cross and age of each one at sight." To meet these requirements, the mark must be permanent, and of course can not be put on the fleece, unless he re-marks his sheep every year. The ears is the only eligible place for a permanent mark, and here are various ways that sheep can be marked on the ear so that the age can be told at sight. I will give a single method, which can be varied to suit the taste or convenience of the owner of the sheep.

Double the *right* ear lengthwise, and cut diagonally across the end; this will make what is called a "swallow fork" in the end of the ear. Let this stand for 50. With a tool, such as shoemakers use to cut the holes in shoes for the strings, cut a single hole in the right ear; this is to stand for 10. A swallow-fork in the left ear will count 5; and each

hole in the left ear counts 1. Mark all lambs dropped in 1860 with a swallow-fork and one hole in the right ear. Those dropped in 1861 would have, in addition to this mark, one hole in the left ear. Lambs dropped in 1867 would have the swallow-fork and hole in the right ear, and a swallow-fork and two holes in the left ear. A diagram will make this more plain than any description:



Right Fork.....	= 50
2 times 10.....	= 20
Left Fork.....	= 5
3 times 1.....	= 3
	78

This is for lambs dropped in 1878. For more extensive and complicated methods of marking in this style, see the Patent Office Report for 1847, page 279.

By keeping a sheep register, J. S. can tell the "cross" of each year's crop of lambs. This is the easiest method, and the surest.

If he prefers to mark the fleece instead of the ear, the following compound will give as good satisfaction as any:

Heat in an iron vessel one pint of linseed oil, one-fourth of a pound of rosin, and one gill of tar; melt and mix them thoroughly. Add a sufficient quantity of lampblack to make a paint of the right consistency. Put it on after shearing, with a brush or stamp. This makes an indelible mark, that will not wash, melt, or wear off. Linseed oil, white lead, and lampblack, make a good mark, but it is not so durable as the first; neither is it so costly, as a pint of the mixture will mark double the number of sheep that the former will.

Westfield, N. Y. D. A. A. NICHOLS.

RECIPE FOR MAKING GOOD HARD SOAP.

EDS. GENESEE FARMER:—In the May number of the *Farmer*, among the "Inquiries and Answers," I find that C. A. CHASE, of Ohio, is desirous of obtaining a recipe for making good hard soap. If he will be very particular and attend fully to the following recipe, he will possess as good and as pure a chemical soap as he ought to desire. But let me warn him, just here, that if he deviates from the principles laid down here—which are simple and comprehensive—the chemical process will thereby be destroyed. I know this to be so from experience.

PURE CHEMICAL SOAP.—Pour 12 quarts soft boiling water upon 5 lbs. of unslaked lime. Then dissolve 5 lbs. of washing soda in 12 quarts of soft boiling water. Then mix the above together, and let the mixture remain together from 12 to 24 hours for the purpose of chemicalizing. Now pour off all the clear liquid—being careful not to disturb the sediment. Add to the above 3½ lbs. of clarified grease, and from 3 to 4 oz. of rosin. Boil this compound together one hour; pour off to cool; cut up into bars for use, and you are in possession of a superior chemical soap.

The cost of this superior article is about 3½ cents per lb.

J. S. CHRISTIAN.

St. Charles, Kane Co. Ill.

STOCK AT THE FAIR OF THE ROYAL AGRICULTURAL SOCIETY.

The last *Journal of the Royal Agricultural Society* contains an interesting "Report on the Exhibition of Live Stock at Warwick," where the Fair was held last year.

Of cattle, there were 411 animals exhibited. Of these 219 were Short-horns, 94 Herefords, 45 Devons, and 53 "Other Breeds."

The term "Short-horn," says the Report, "formerly embraced every denomination of the race, from the commonest mongrel up to the cultivated animal. The common Short-horn was by nature an animal of low standing, of coarse quality, requiring a good climate, a generous soil, and liberal treatment. These were reared for the uses of the dairy, and were truly designated 'good milkers.' They are still bred for the Midland and Western dairies, and still present a rugged form, and can claim no character for early maturity. Such is the Short-horn *dairy* cow, and such her small pretension to appear in a show-yard before judges in search of symmetry. The '*Improved Short-horn*' is an animal produced by cultivating the best races from the earliest times, with a view to produce a ponderous form for meat-making purposes—milk being a secondary object. It is produced only by eminent breeders, who possess that valuable mental quality—the power of accurate observation. This, together with sound judgment, decision, perseverance, and self-reliance, are essential to success in such a course. It has been the object of the improved Short-horn breeder to produce males for the correction of the multitude of inferior Short-horns scattered over our Midland and Northern counties. Bulls of this breed have also been sought for crossing both Scotch and Irish cattle, and they have been sent in considerable numbers for a similar purpose to the Continent, to America, and to the English colonies."

Of HEREFORDS, the Report says:

"This race of cattle has long been celebrated for its steers and oxen. When the ox was the principal moving power of the plow, this breed was held in high repute. The Hereford being a mild, docile animal, he was readily managed, and his power, combined with activity, rendered him valuable for this purpose. Where this system of cultivation continues in use, he is still a favorite; but the wants of a rapidly increasing population now require him to pass into consumption at an earlier age, and the improved system of cultivation renders it very desirable to use the more active animal the horse, in his turn now giving way to the mighty agent steam. The Hereford steer is consequently now principally sought after for his beef-producing properties, for which his scale of form, early

maturity, and aptitude to fatten, render him highly distinguished. Youatt, "On Cattle," alludes to a sale of Hereford oxen for the London market in 1694; and at the first meeting of the Smithfield Club, in the year 1799, Mr. Westcar won the first prize with a Hereford ox, which was afterwards sold for 100 guineas; he was 8 ft. 11 in. long, 6 ft. 7 in. high, and 10 ft. 4 in. in girth. Another, exhibited at the same meeting, was 7 ft. high and 12 ft. girth, and from the formation of this club to the year 1851, being the last year in which the different breeds were shown in competition, the Hereford steers and oxen won 185 prizes, the Short-horns 82, the Devons 44, the Scotch 43, the Sussex 9, the Long horns 4, the Cross-breeds 8—making a total of 190 prizes for all other breeds, and only 5 more than were awarded to the Herefords alone.

"Allusion was made in the Chester Report to the deficiency in the milking properties of the cow: this arises from the fact of breeders paying greater attention to their feeding than their milking properties; but there are pure-bred herds in dairy districts where proper attention has been paid to them, (the produce being reared by hand instead of sucking their dams) that have resulted satisfactorily to their owners, as they stock their land thicker, and thus gain more from the increased number of animals reared than they lose in the dairy produce. This has been proved by carefully tried experiments, one of the earliest of which is recorded by Youatt. The best Herefords being small consumers, and of good constitution, are well adapted for cold situations, yet, like all other animals, the better they are kept the better they thrive, and the quicker is the return they yield.

"The Hereford classes contained some very choice specimens of the breed, and, as a whole, no class of animals attracted so much attention. Until within the last four or five years they were shown in limited numbers, principally from the county whence they take their name. This year they numbered 89. Those from the herd of H.R.H. the Prince Consort were highly deserving the distinction paid them by the judges. The entries extended over a broad space of country, viz., Salop, Montgomery, Radnor, Monmouth, Gloucester, and Warwick, many of them exhibiting successfully. It is a singular fact that "other counties" equally divided the prizes and commendations with those sent from Herefordshire, thus proving the fallacy of the statement, that they will not succeed when bred out of their own county."

Of DEVONS the Report says:

"Although so little has been written on it, the improvement of the Devon has not been neglected; on the contrary, its breeding has been studied like a science, and carried into execution with the most sedulous attention and dexterity for upwards of 200 years. The object of the Devon breeder has been to lessen those parts of the animal frame which are least useful to man, such as the bone and offal, and at the same time to increase such other parts (flesh and fat) as furnish man with food. These ends have been accomplished by a judicious selection of individual animals possessing the wished for form and qualities in the greatest degree, which being perpetuated in their progeny in various proportions, and the selections being continued from the most approved specimens among these, enabled

the late Mr. Francis Quartly at length to fully establish the breed with the desired properties. This result is substantially confirmed by the statistics contained in Davy's 'Devon Herd-Book.' We have been curious enough to examine these pedigrees, and find that nine-tenths of the present herds of these truly beautiful animals are directly descended (especially in their early parentage) from the old Quartly stock. Later improvements have been engrafted on these by the Messrs. Quartly of the present day. The example of various opulent breeders and farmers in all parts of the county has tended to spread this improvement, by which the North Devon cattle have become more general and fashionable. The leading characteristics of the North Devon breed are such as qualify them for every hardship. They are cast in a peculiar mold, with a degree of elegance in their movement which is not to be excelled. Their hardihood, resulting from compactness of frame and lightness of offal, enables them (when wanted) to perform the operations of the farm with a lively step and great endurance. For the production of animal food they are not to be surpassed, and in conjunction with the Highland Scot of similar pretension, they are the first to receive the attention of the London West-end butcher. In the show-yard, again, the form of the Devon and its rich quality of flesh serve as the leading guide to all decisions. He has a prominent eye, with a placid face, small nose, and elegantly turned horns, which have an upward tendency (and cast outward at the end), as if to put the last finish upon his symmetrical form and carriage. These animals are beautifully covered with silky coats of a medium red color. The shoulder points, sides, and fore-flanks are well covered with rich meat, which, when blended with their peculiar property of producing meat of first-rate quality along their tops, makes them what they are—'models of perfection.' Of course, we are here only speaking of the best-bred animals. Some object to the North Devon, and class him as a small animal, with the remark, 'He is too small for the grazier.' In saying this it should ever be remembered that the Devon has its particular mission to perform, viz., that of converting the produce of cold and hilly pastures into meat, which could not be done to advantage by large-framed animals, however good their parentage. The Devon may thus be designated the 'pony' of the ox tribe."

We make a few extracts from the remark on the different breeds of sheep:

"LEICESTERS.—The leading qualities of the Leicesters are early maturity, lightness of offal, aptitude to fatten, and small consumption of food; producing consequently a larger amount of mutton per acre than any other breed. As improvers of other breeds they are invaluable; indeed, there are but few (if any) long-woolled sheep that do not owe something to the Leicester.

"The Leicester of the present day is much altered. The late Mr. Bakewell confined himself to symmetry and mutton-producing qualities, consequently thin necks and light wool were produced as a rule, while they are now the exception."

"THE SOUTHDOWN.—This sheep is now fully recognized as a first-class animal, combining beauty

of form, quality of wool and flesh, with elegance of movement. As such, they are much sought after for grazing our English parks, and adorning the seats of our aristocracy and country gentlemen. Again, for the 'home farm' they are just the thing, combining, as they do, park-like beauty of appearance and delicious flesh for the squire or connoisseur. No breeders are so tenacious on points of color, bone, elegance of shape, beauty of features, and quality of wool, as the Southdown breeders. The color of his face must be a peculiar brown, neither too light nor too dark, either being objectionable; the wool must be close and fine, but in tolerable quantity, and, to use a provincial expression in the county of Sussex, it should be 'as hard as a board;' the head must be well covered with wool, particularly between the ears, and carry a nice 'fore-top' on the forehead. The most striking fault in many Southdown flocks is a very ill-formed shoulder, light fore-quarter, light in the brisket, and narrow between the fore-legs. No man has done so much toward remedying this defect as Mr. JONAS WEBB, his flock being particularly good in this respect. The brown leg and foot is another peculiarity of the breed, as also the deeply let down 'haunch of mutton,' not forgetting the dark rick gravy that 'cures the gout.' The setting on of the neck, when nicely blended with the shoulder, gives these sheep a remarkable elegance of carriage. Thus it is that these animals are so prepossessing in appearance."

"LONG-WOOLLED SHEEP.—This is an open class for all the long-woolled breeds, such as the Cotswolds, Lincolns, Kents, etc., but it was represented by the Cotswolds alone, not a Lincoln or Kentish sheep being upon the ground."

(To be continued)

APPLES FOR FEEDING.

FOR CATTLE, sweet apples are found to be an excellent substitute for roots—promoting both growth and health.

FOR SWINE, nothing equals an *apple-pie*, either for relish or for fattening power. The pig is not very dainty about his pie, however. If you merely cook the apples and stir in a little bran, he won't refuse the dish; substitute shorts, or corn-and-cob-meal, or ground oats or buckwheat, and it will suit his palate and pile on the fat amazingly. And, for finishing up a piece of pork, an apple-pudding, thickened with good corn-meal, is as far ahead of hard corn as the corn is of raw pumpkins.

Pork made with apples is sweeter, and quite as free from *shrinking*, as the "corn-fed."

But to the question—"Would it be profitable to raise sweet apples for feeding to cattle or swine?"

Altogether so—unless the apples will bring in market *much more than they cost* to feed the humans on! True, it takes time to start an orchard and bring it into bearing; but then the outlay is small, and the ground may be profitably used for other crops while the trees are growing. When once in bearing condition, what other crop will pay as well as apples? For swine, they may be made to *save half the corn* used in fattening pork. For cattle, they are worth nearly or quite as much as roots. Plant out the apple trees; they must prove profitable.

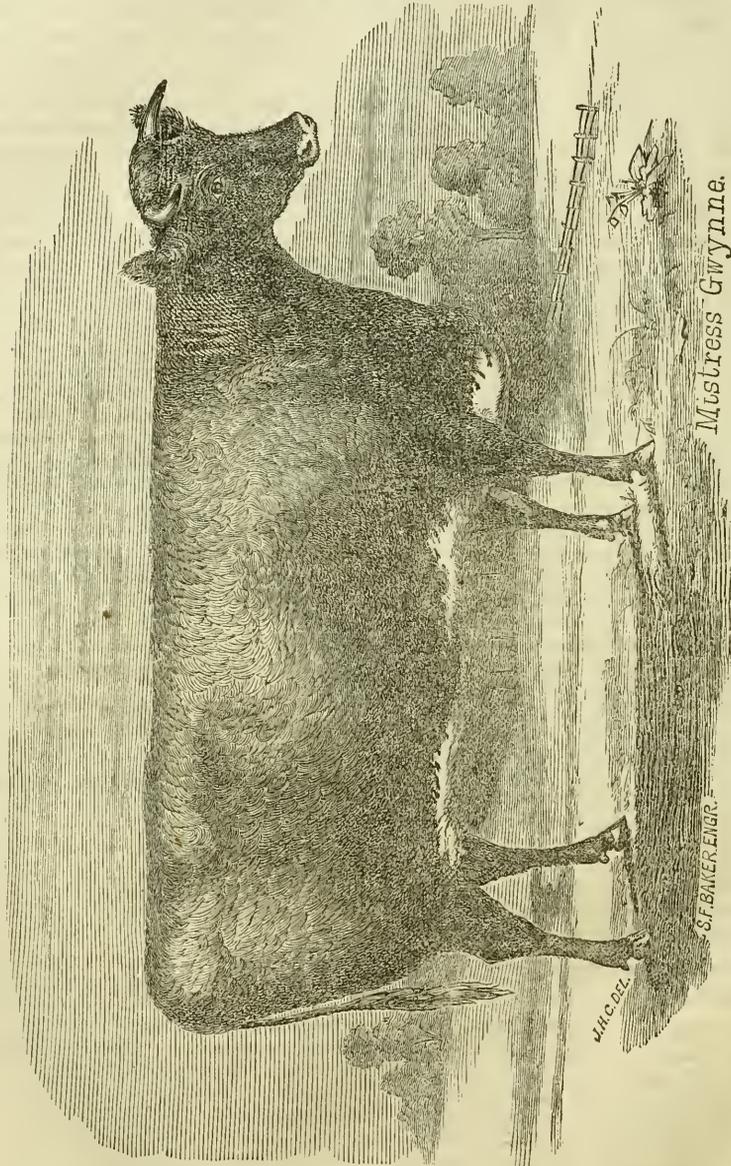
¶¶ L. S. ¶¶

Attica, N. Y.

THE RUPTURE OF A COLT CURED.

EDS. GENESEE FARMER:—My father owns a mare colt, which is two years old this spring. After the colt was foaled, part of its intestines protruded through the rim of the abdomen. The intestines would often get entirely bound into the rupture, which gave the colt the most intense pain, and was

relieved only by returning them to their proper place by force. I gave the blemish but little attention until the winter of 1859. I wrote to Dr. DADD, of Boston, who said the rupture could be cured by a surgical operation. I then applied to Dr. MICHE-ENOP, our skillful veterinary surgeon; he agreed to perform the operation. He came on the 25th day of April, 1859. We threw the colt and secured it



SHORT HORN COW "MISTRESS GWYNNE."

Bred by and property of SAMUEL THORNE, Thorndale, Washington Hollow, N. Y. Winner of the First Prize and Silver Medal, as the best Cow at the Fair of the New York State Agricultural Society in 1850.

firmly, causing it to lay upon its back; by which position the intestines returned to their proper place. He then made an incision in the outer skin, and dissected the two skins apart, tied a cord tightly around it, and cut off the lower extremity. A strong cord was drawn around the outer skin, as near the abdomen as possible. The intestines that protruded through the rim of the abdomen were

above five inches in circumference, and $2\frac{1}{2}$ inches in length. The colt is now sound, and bids fair to make a valuable horse.

ED. O. ROMINE.

Stockton, N. J.

FLAX SEED.—There were imported into this country last year (almost entirely from India,) 2,348,777 bushels of flax seed.



THE CURRANT OR GOOSEBERRY WORM.

THE Gooseberry Worm (*Nematus trimaculatus*), has already (May 10th,) made its appearance here and commenced its work of destruction. In most gardens it is allowed to take its course, to the total destruction of both fruit and bushes; while others, with commendable zeal, are combatting it with all the methods ingenuity can suggest, but we are sorry to say that in most cases the little armies are the triumphant victors.

The most usual methods employed to destroy these worms, are, first, hand-picking the bushes; and this is the most effectual, as it is also the most laborious and expensive. It involves the necessity of looking over every leaf, picking off the worms and afterward destroying them; this operation must be performed as often as any worms show themselves—sometimes every day, and again in two or three days. And this must be followed up until late in summer; a day's neglect, or even a few hours, sometimes, will hazard great loss.

Dusting the leaves with lime is often resorted to, but as it is impossible that it should be scattered on all the leaves, and especially on the under sides, where the worms generally are, it is really of but little use.

It has been suggested to us that a weak solution of turpentine and water, thrown on the bushes with a syringe, might prove efficacious; but we have never heard of a trial having been made with this, and of course cannot give an opinion as to results. If any should try this experiment, it will be necessary to use the turpentine very weak, or it will injure the foliage. The strength necessary to destroy the worms can be tested by using it on a few worm at first, and on one plant, before making a general trial.

On the whole, we can offer little encouragement for saving our useful currants and gooseberries, but still hope that among all the expedients resorted to for the destruction of this pest, that some effectual means will be discovered.

Last year we had a number of currant bushes that were entirely denuded of leaves in June by the caterpillars. We removed them while in this state to another part of the garden, thinking that they might escape the second brood of caterpillars. The bushes all lived and did well, putting out new leaves, and escaped the caterpillars. They are now, however, nearly as much infected as those not removed. We examine the bushes every morning, removing all the caterpillars as soon as they are hatched; and the leaves are healthy, and we anticipate a good crop of currants. Some of the bushes not transplanted last June were so much affected by the second brood of caterpillars that they have since died. We believe that by transplanting the bushes immediately after the crop is gathered, and then spading the ground where the bushes grew two feet deep, putting the surface containing the caterpillars and their cocoons, at the bottom of the trench, we shall destroy the great portion; and then by a little attention the next year we can still raise currants and gooseberries.

This insect, though comparatively new here, is a very old enemy in England, where, however, by care and attention, it has been so far destroyed that it now does but little injury. Such will, we hope and believe, be the case in this country.

THE STANWICK NECTARINE.

WE extract the following from a letter dated May 6, from one of our subscribers in Columbia, Tenn., in reference to the *Stanwick* Nectarine, which has been generally considered an unusually tender variety:

"I planted out, on the 6th day of January, 1853, a small *Stanwick* Nectarine. Last year it grew about three feet, and this spring it had five blooms and has set four nectarines; the largest is now 2 inches from stem to eye or point, 3 2-12 inches in circumference, and 4 inches in circumference lengthwise.

"This has stood out all the winter without protection, while forty odd peach trees, of five superior kinds, propagated by budding and grafting, had the fruit either killed in the bud or after blooming; and this nectarine and the *Boston*, *Elruge* and *Downton*, and the seedling peaches of this latitude, alone have escaped the spring frosts, which have killed cherry and apricot trees that measured from 6 to 12 inches in circumference down to the ground.

"These varieties of nectarines, and all of these peaches, were budded upon an old peach tree, (a

head was put upon a poor seedling with the buds of all of these). Those that were budded the 11th of June, 1859, were from twelve inches to two feet long; some were budded in the same tree in June, 1858, and were three or four inches in circumference, and these, with all the others, put out leaves finely; the old buds and the *Stanwick* nectarine budded last June were full of bloom, (this last I would not state if the bloom had not been seen and examined by numbers of our Horticultural Society, as such a thing is so unheard of with anything else,) and stood the frost and were not hurt; but after a fine rain, we had a freeze which killed not only the peaches, but 15 of the buds of June, 1859, and the buds of 1858 down to the old tree, while the *Stanwick* Nectarine wood was entirely unhurt, and they stood as monuments of their hardiness. And I am well satisfied that in this latitude they can be grown out of doors wherever any other nectarine or peach can be."

PHYGELIUS CAPEXENSIS.—This plant, of which we gave an engraving and description in our February number of last year, has proved itself the past winter to be quite hardy in the open ground, without any protection; and we bespeak for it a general introduction among hardy herbaceous flowering plants. It flowers very freely in August and September, and its full expanded panicle of gracefully nodding flowers, is an ornament which will entitle it to be considered a most valuable addition to this class of plants.

CARRYING STRAWBERRIES TO A DISTANT MARKET.

C. S. Dob, of Jackson, Tennessee, states, in the *Horticulturist*, that last year he sent strawberries from Jackson to Chicago, a distance of 474 miles, by railroad, and the result was "entirely satisfactory; the fruit arriving in perfect condition; time, thirty hours." They were sent in the following manner:

"The fruit was picked very carefully into pint tin cups, the depth of which was equal to the diameter. The cups were placed, not on the bottom of the chest, but on a false bottom, which played freely in the chest, and rested on four or six spiral wire springs, such as are used for making spring mattresses, and costing a dollar per dozen. The number of springs was varied according to the weight of fruit packed in. The chests were made of such dimensions as to receive just so many cups each way, so as to allow barely a free play, with no extra room for jostling: on the top of the first tier of cups, narrow and thin strips of wood were laid, and another tier piled thereon, so in succession for four or five tiers. On top of the whole rests a vessel or box for holding ice, four inches deep, and

of the same length and width as the false bottom. This is made of wood, except the bottom, which is of common stove-pipe iron, nailed to the wood and secured against leaking by white lead. In the top is a hole for introducing the ice, with a close-fitting cover. This box, with its charge of ice, rests on the topmost tier of cups, and rides with them on the springs. A lid, with hasp and padlock, shuts down over the whole. To prevent rude handling, stout trunk-handles are placed on the ends of the chest. A better arrangement than this could not be desired. The whole load danced to every touch, and the fruit was relieved of all jolting. No air-holes were found necessary, but appeared rather to be injurious on trial. If the cups would bear covering with a tin cap, like a mustard box, or a blacking box, it would better guard against any accidental overturning of the chest. Mr. PEABODY says the fruit will speedily spoil, if thus confined. With ice I do not believe it will; but this remains to be tried. The liability to loss by careless handling, tilting, and upsetting the chests, was the only difficulty experienced."

AN IMPROVED WATERING-POT.—We annex a cut of an improved watering-pot, the invention of Mr.

GLENNY, a well-known English horticulturist. The improvement consists in the peculiar construction of the handle, causing the weight to be more easily balanced in the hand, and enabling the holder to empty the pot with less muscular exertion. The cut renders a further description unnecessary.



WOOD-PECKER—BALDWIN APPLE.

I saw what LORENZO DOUD says in the February number of the *Farmer* about sap-suckers. When I was a boy, I used to think, like Doud's boys, that they hurt the trees; but now I think they did no hurt the trees half as much as I did by shooting at them.

I once knew a man by the name of LAMMI BALDWIN, of Woburn, Middlesex Co., Mass., that, report said, found an apple tree in the woods on his farm that was very much pecked by these birds. He gave it the name of the *Wood pecker* tree. It went by that name until the kind got spread, and I became acquainted with them 70 miles distant; but it appeared, as if by general consent, it took the name of the *Baldwin* apple, which is the kind now so generally known by that name. It may be seen now, that trees of that kind, if grafted at the ground—as most trees are of late years—are more pecked than most other trees in the same orchard; but I do not think I ever knew one, even of that kind, killed by the sap-suckers. N. WRIGHT.

Hornellsville, N. Y.

DOWNING, in his *Fruits and Fruit Trees of America*, gives the "Wood-pecker" and "Pecker" as synonyms of the *Baldwin*, but the reason assigned by our correspondent is new to us. It is doubtless the correct one.

EVERGREENS.

THE planting of Evergreens is a prominent feature in American modern gardening, and has already produced a great improvement in our rural scenery.

To us, however, it appears that, as a people, we are adopting this branch of tree-planting as a mere fashion; and, as a fashion, following it blindly, without skillful taste and proper discrimination.

If it is desirable that evergreens should be planted for the adornment of our landscapes and embellishment of our homes, it is really necessary, to attain this result, that a judicious taste should be exercised in reference to the positions they occupy, the numbers planted, and the particular varieties best adapted to accomplish the desired purpose. In this matter there is open to the public a wide field for study, for criticism, and for the practical expression of good taste and good sense.

Instances are becoming more and more frequent of large evergreens growing within four to six feet of residences, with their branches on one side, crowded out of place and spread over the front of the house, effectually excluding light and circulation of air from the interior. Again, in small city lots we often see a dozen growing up together, and occupying the space that one, only, should be allowed.

A single specimen, well developed in all its parts, on every side, is a much more beautiful object than a crowded group of imperfectly formed trees can possibly be; and its scenic effect, also, is much better.

In one yard in this city, two or three dozen Spruces are growing on a space of about 15 by 30 feet—a perfect swamp, without beauty or utility.

In cemetery lots, this fashion of planting is carried on to a ludicrous extent— from six to a dozen trees frequently being planted on a small lot twenty feet square.

In limited spaces, we would recommend the smaller varieties of Junipers to be planted, and also the American, Siberian and Golden Arbor Vitæ, which may be pruned and confined to a small compass for a long time.

On the south side of a dwelling, where shade is desired, it will usually be best to plant deciduous trees; as they will afford more shade in the summer, and admit the cheerful rays of the sun in the winter season.

We do not wish to convey the idea of underrating evergreen trees; indeed, it is impossible to estimate their value too highly.

The Norway Spruce, for its hardiness, beauty of form, vigor of habit, and other useful qualities, has become deservedly a popular favorite; and the planting of it and other valuable sorts of Spruces, Pines, etc., should be greatly extended. Not only for ornamental purposes are these desirable, but especially would we recommend them as screens from the prevailing high winds. Planted on the



NORWAY SPRUCE.

north and west sides of dwellings and stables, and scattered either singly or in groups over large open spaces, the higher growing evergreens can seldom be out of place, or offend the eye of the nicest critic. Even village lots afford room to grow one or two, when a greater number would be quite unwarrantable.

The time best adapted to transplanting evergreens is when they are just swelling their buds; and even after they have begun to part, they may be moved with perfect success.

INTERESTING NOTES ON THE PEACH, BY A LADY.

I HAVE read with much interest the letter from Mr. DANA, enclosed in your note of March 1st, describing the effects of the Red Spider on the Peach trees in Massachusetts, and also examined with great care the eggs on the peach bark sent with the letter. This species is new to me.

I have no doubt of the truth of Mr. DANA's statement, that trees so infested will, and must be victims to such a pest, and that those trees do die of the yellows; but that the Red Spider is the only cause of yellows, I must beg leave to doubt. After years of careful investigation, I have arrived at the conclusion that whatever impedes the healthy circulation of the sap of that delicate tree will produce the yellows; and then, generally speaking, death is inevitable, and the sooner the tree is cut down and burned, the better it will be for the fruit grower, as it saves time and trouble.

That the Red Spider is not the only cause of the yellows in the Peach tree can be proved beyond doubt, as all intelligent observers will agree, that whatever cause obstructs the natural flow of the sap, either in the spring or autumn, will produce disease in that delicately organized tree.

The Peach tree, like the Grape vine, is supplied with a redundancy of sap, which pours into the large and tender sap vessels as soon as the first warm rays of the sun thaws the earth and quickens the sap in the roots; every bud swells, and the rushing sap struggles to expand itself in leaves and flowers. If this takes place prematurely, a severe frost follows, the sap freezing bursts the sap vessels, blights the leaf and flower buds, and a general disorganization of the functions of the tree follows. The sap, obstructed in its course, forms a thousand new channels, shoots out in numerous sickly yellow twigs, and oozes out in gum from every wound or split in the bark, then the tree must die.

The well known *Egeria exitosa*, or Peach Borer, is a fruitful source of the yellows in all the Middle and Southern States. This insect deposits her eggs in the bark near the roots of the Peach tree; the grubs soon hatch and penetrate into the sap vessels, on which they feed ferociously, gnawing their tortuous paths in and around the roots, cutting off the passage of the ascending sap. For a time the tree shows no signs of the concealed foe; but as the grubs grow large, and their paths widen, they girdle the tree; the branches then wither, and the sickly shoots in August show that death is inevitable. The grubs should have been taken out in July; it is too late when the yellow, sickly shoots appear; then cut the tree down, burn it and kill the grubs, or you raise a family of enemies for the next year.

The *Tomicus liminaris*, a minute bark beetle, proves, when numerous, a deadly foe to the Peach tree. This little insect sometimes makes its presence felt rather than acknowledged; as, both in the grub and beetle form, it inhabits the bark, and seldom appears in the day-time. Its flight is in the night, and it generally spreads from tree to tree, alighting on and infecting those branches and trees nearest the one first attacked. This, it is believed, is the infectious yellows.

A few years since, eighteen trees in my garden were destroyed in one summer by the *Tomicus liminaris*; the eggs were deposited in the sap vessels

of the bark, all over the trees, and in one case not an inch of the bark escaped, from the top branch to the root; the irritation was extreme, somewhat analogous to the itch in the human skin. The obstructed, yet stimulated sap threw itself out at every bud in sickly yellow twigs, and the tree died of exhaustion. The disease spread rapidly, and eighteen trees were destroyed before the cause was discovered. They had been carefully protected from the borer (*Egeria*), and the dark green of the leaves in the spring showed there was nothing in the soil that disagreed with the roots. The trees were then cut down and burned, and the infectious yellows disappeared from the garden.

When Peach trees have been cultivated for years in the same garden, the soil becomes exhausted of the nourishment that is essential to them. Care should then be taken to remove the old soil, and replace it with such as is well known to agree with Peach trees. Sickly trees may then become healthy and bear good fruit; but seedlings raised from unhealthy trees will generally prove sickly, and die of the yellows.

In the neighborhood of Baltimore, the Peach is cultivated in great perfection and with little care; the soil of that region is rich in mineral salts, such as alum and saltpetre. Does not this lead to the supposition that a judicious mingling of these would be essential in a soil where these minerals are not found? And Peach growers frequently mingle both these salts with common salt, and sprinkle it around their trees, and if the trees are free from insects the result is always good.

If these observations, drawn from a life of experience in the culture of the Peach, can be of service to you, it will give great pleasure to your friend,

M. H. MORRIS.

[We insert this communication with great pleasure, as probably no one in the world has devoted more time and careful study to the subject than the distinguished authoress, and in acknowledgment of whose services in the cause of science, the Academy of Natural Sciences has recently conferred on her the degree of honorary membership—the first lady, we believe, who has been so honored by it. We have known Miss Morris' Peach trees to be heavily laden with fruit, when all others have failed in the vicinity, attesting the value of her views by their success; and our own experience confirms her suggestions on the importance of mineral manures.—Eds.]—*Gardener's Monthly*.

RENOVATING OLD APPLE TREES.—If their fruit is bad, the sooner you fill the tops with scions from the best varieties, the better; but do not make "Shanghai" of them. Graft as low as possible.

The scriptural way for the fig tree was, to "dig about it and dung it." No better way can be found for the apple tree; but remember the word "about," and let your operations extend full as far as the utmost branches reach. Do not dig too deep, nor injure the roots unnecessarily. Stirring the surface soil frequently is what you want. Try that, and you will be amazed at the renovation you work in old apple trees.—†† L. S. ††, *Attica, N. Y.*

SOAP SUDS should always be saved and used on grape vines, fruit trees, etc.

EXTRACTS FROM "NOTES OF AN EUROPEAN TOUR."

We find in HOVEY'S *Magazine* for May a very interesting letter from the Hon. J. S. CABOT, dated Rome, March 2d, 1860, from which we make a few selections:

"My route led me through the vine-growing and olive-producing regions of France and Italy—at least where these occupy principally the attention of cultivators—through that part of the empire first named called the *Borbonnais*, where the *Burgundy* wines are made. At *Fontainebleau*, about 30 miles from Paris, there are extensive vineyards, principally for the purpose of raising grapes for the supply of the Paris market, to which, in the season, great quantities are sent daily, the kind raised being mainly the *Chasselas de Fontainebleau*; and from here onward, for two or three hundred miles, it is almost an uninterrupted succession of vineyards. The whole country is covered with grape vines—not only the plains and valleys, but the sides of the mountains even to their summits, where circumstances allow of their cultivation, giving to the landscape at this season a brown or reddish appearance as it lays in the sunshine. With others of celebrity, I passed by the vineyard that produces the celebrated *Hermitage* wine; this is of small extent, not more than two or three hundred acres, so situated on the slope of the mountain that the sun lays on it all day, the soil being of a peculiar character, and immediately adjoining it, though apparently similarly situated, being either too rich or too poor to produce grapes of the quality or peculiar flavor necessary in the manufacture of this particular wine.

"Through all this region of country the mode of cultivating the grape appears to be the same; they are planted in rows about four feet apart, the vines being about the same distance apart in the rows, and trained to stakes of about four or five feet high, generally one or at most two shoots. What particular tillage the land receives, or what is the produce of a vine, I have no means of knowing. The land about the vines is kept clean and loose by the plow, and I presume is, when necessary, enriched by manure. * * * *

"In Modena and Tuscany a different method from that pursued in France prevails with respect to the cultivation of the grape. Here, instead of planting them in rows near together and training them low, the fields are planted with mulberry trees, or trees for fuel, and grape vines planted at the foot of the trees; these are trained up the trees, and the branches led from tree to tree, as in *festoons*. I have no means of judging of the relative advantages of the different methods, but suppose that each has its advantages that commend it to the cultivators of the different countries. * * *

"The Italians have had the character of being an indolent people, but it seems to me that they have been unjustly subjected to the imputation; certainly in the mountainous regions an immense amount of labor has been performed in the construction of terraces, and every spot susceptible of it receives a careful cultivation. The roads are excellent, and being built sometimes along the sides or over the summits of steep mountains, winding up and down them by ascents and descents so

gentle as sometimes to be almost imperceptible; at others, carried along the shore or overhanging ledges. They are not only remarkable proofs of engineering skill, but striking instances of what well-directed labor can accomplish. * * * *

"From what I had heard and read in relation to the subject, I had supposed that there existed a method of laying out gardens and grounds in Italy that was called the Italian style, of which examples might be constantly met with; but though I have visited a few villas that were considered among the finest in that part of the country where I have been, and have obtained views of many as I passed along, I have failed to see that any have exhibited what I suppose to be the peculiar and distinctive features of this style in any marked degree. It may be that the impression I had received with respect to these distinctive features was incorrect—and I am ready to acknowledge that I had formed no very clear and distinct idea concerning them, or it may be that they have in a great measure disappeared by the gradual introduction of what is commonly called the natural method in landscape or villa gardening. True it is that in most of the villas that I have seen, I have met with statues and fountains, stair-cases, balustrades and terraces; and these I suppose to be some of the component parts of that style, but they have been free from that stiffness and formality of arrangement and adherence to straight lines that I have presumed constituted its essence. The use of statues and fountains in laying out and improving grounds surely is not inconsistent with the natural method; but on the contrary way, as it seems to me, be employed with great effect as adjuncts, and tend materially to an increase of their beauty."

JAPAN PEAS.

EDS. GENESSEE FARMER:—Within the last three years I have raised several kinds of Japan Peas, and find them good food for man or beast; while they are very productive, and not troubled with the pea-bug. In preparing them for the table, they should be soaked in cold water for twelve hours or more before cooking.

The *Red Japan* Pea is of small size and growth, and the earliest of all. The pods contain from 12 to 20 peas each.

The *Green* is the largest, latest, and probably the most productive. It grows similar to the *Yellow*.

The *Yellow* is the most common sort; of medium size, and has a strong, bushy stalk, which always stands up well. I have raised at the rate of over 80 bushels per acre, with no extra culture.

Erie Co., Ohio.

E. E. SMITH.

TOMATOES FOR MILCH COWS.—W. C. EARL, of Toledo, Ohio, states that he fed his cow tomatoes, green, ripe, and thawed out after freezing, last fall, with good results; "they not only caused her to give a good supply, but a rich quality of milk." In his opinion, there is no vegetable superior to the tomato for making milk.

LOCUST TREES.—F. H. WILLIAMS, of Prairie Ridge, Iowa, informs us that he sowed some locust seed last spring, and the young trees are now (March,) 4½ feet high.

Ladies' Department

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

CRUMB CLOTH.—Prepare a frame of narrow strips of boards, the size you wish the cloth to be when spread under the eating table. Take substantial brown factory cloth, and sew it together till it fills the frame; then hem it all around. Stretch the cloth on the frame, and tack it fast with small carpet tacks. Fill the cloth with common paste, made of wheat or rye flour, and let it dry. Prepare your paint—any color you like—and paint only one side. Give it two or three coats.

BLACKING STOVES.—Pound and rub some good black lead into a powder; then mix strong coffee with it till the mixture becomes as thick as cream. If the air is cold and damp, warm up the stove slightly. Rub it with the mixture, and polish off with a dry brush. This stove blacking makes a fine polish and prevents the stove from rusting when put away for the summer.

GLUE.—Use a piece of zinc to stir your glue, or keep a small piece of zinc in the bottom. It is said to prevent it from acquiring that unpleasant odor common to glue.

TO POLISH FLAT-IRONS.—If your flat-irons are rough, rub them well with fine salt, and it will make them smooth.

TO WASH RIBBONS.—Ribbons of any kind should be washed in cold soap-suds, and not rinsed.

OLD CRAPE.—A bit of glue, dissolved in skim-milk and water, will restore old crape.

GREASE SPOTS.—A hot shovel held over varnished furniture, will take out grease spots.

SELECTING CARPETS.—If you are buying a carpet for durability, choose small figures.

BEDS.—Oat straw is the best for filling beds. It should be changed once a year.

YOUNG HOUSEKEEPERS.—How many young housekeepers are tried and perplexed with what some would consider small matters! Many have been brought up by well-meaning mothers, who have allowed them to assist in the smaller matters of housekeeping; but instead of placing the responsibility of making pies, bread, and cakes, entirely upon them, have preferred to do it themselves. Is this right? Were mothers to be more dependent upon their daughters, would they not, in general, make better housekeepers?

Well do I remember, when a young housekeeper, my first attempt at making mince pies. It is true, I had some considerable knowledge of housekeeping; but I had never, until then, been dependent upon my own judgment in household matters.

Like most young wives, I was extremely anxious that my husband should think me a model housekeeper; and therefore I went to work with real earnestness. We had some nice beef, and I was to try my skill in making pies. I had often assisted

my mother by chopping the meat, raisins and suet, but to make pies alone I never had. However, I had considerable confidence in myself.

I knew that a good crust must be made of lard and water; but I did not then know that the lard must be cut up and well worked into the flour before the water was added. So I made my crust, and it was hard and tough. The mince, although finely hashed, was not very nicely seasoned, and I filled the crust too full; so they boiled over in the oven, and of course were somewhat smoked. My husband was not disposed to find fault. He said the crust was a little tough, and that they had got a little smoky. I was not suited with them, and thought I would have better pies next time. But it took more than *one next time* to have my pies just as I thought they ought to be. Then I had conquered, when my husband told me they were the best pies he ever ate.

Many such lessons of patience and perseverance did I learn the first years of married life.

Armada, Mich.

MRS. A. J. S.

WOMAN'S OCCUPATION.—In these days of progress and improvement, not the least among the many evidences we meet with of the triumph of science over difficulties hitherto supposed insurmountable, is the invention of sewing machines. Woman need now no longer be a mere mechanical drudge, doomed to pass her days forever in the seclusion of home—wasting away her energies, and her life, in the everlasting occupation of needle-work. The days when Tom Hood wrote his pathetic "Song of the Shirt" have passed away, and are numbered among the things that were. It may perhaps be said by some, that with the introduction of sewing machines, woman's occupation is gone. This, perhaps may be true of many of those who, having been educated in a former age, find that education too limited for the present time, and have no resources to fall back upon, or the ability to adapt themselves to follow new channels of life.

So long as the present system of female education is followed, the effect of this loss of her occupation will be to make her still more dependent. But a revolution in the system of education must sooner or later take place, and woman must be fitted—not to be a mere ornament to a house—a gewgaw to be taken around for show, like a little dog led by a golden chain, or as a mere household slave. No! woman must be so educated as to become not merely the companion, but the teacher of man. Her education must be carried out on a sounder and broader basis. She must be taught so as to be fitted to become herself a teacher. She must be fitted to take care of herself, and to feel that she has a mind, and that her mind is capable of being directed into channels of thought—by which she can acquire a position of independence, and exercise a greater and better influence than she at present does. She should also become more accustomed to out-door exercises, and should study physiology; and take an interest in the discoveries of science, and what is going on outside of her own immediate circle.

PROGRESS.

GREENS.—It is perhaps not generally known that the leaves of one of our common weeds, known as *Lamb's-quarters*, when boiled, make excellent greens.



New Advertisements this Month.

Patent Paper Bags—Vanderhoof, New York.
 Sheep—J. & H. H. Spencer, Whitby, Brooklyn P. O. C. W.
 T. W.'s Revised Series of Text Books—Phinney, Blakeman & Mason, New York.
 Scribner's Ready Reckoner—G. W. Flisher, Rochester, N. Y.
 Public Sale of Short-Horns—James Gowan, Philadelphia, Pa.
 Improved Mowing Machine—W. A. Wood, Hoesick Falls, N. Y.
 El Pureidis—Ticknor & Field, Boston, Mass.
 Disease Among Cattle—Crosby, Nichols, Lee & Co., Boston.
 Drain Tile—W. Otis, Rochester, N. Y.
 Rochester Agricultural Works—Alexander Gordon, Rochester.
 Mend Your Tin-Ware—F. I. Sage, Middletown, Conn.
 Pittsburgh Water Cure—Dr. Frease, Pittsburgh, Penn.
 Russia or Bass Mats—D. W. Manwaring, New York.
 American Guano—J. K. Chappell, Rochester, N. Y.
 Farm for Sale in Virginia—A. Van Doren, Falcoouth, Va.
 Farm for Sale—G. A. Kimble, Burdett, Schuyler Co., N. Y.
 Female Agents Wanted—Marie Louise Hanks & Co., N. York.
 Mowing Machine Improvements—R. L. Howard, Buffalo, N. Y.
 Attention, Farmers—R. L. Howard, Buffalo, N. Y.
 Merino Bucks—Geo. Campb ll, West Westminster, Vt.
 Both Sides of the Grape Question—A. M. Spangler, Phila.
 Rochester Central Nurseries—C. W. Seelye, Rochester, N. Y.
 U. S. Tent and Flag Manufactory—James Field, Rochester, N. Y.
 Turnip Seed—J. M. Thorburn & Co., New York.
 Public Sale of Thorough-bred Ayreshires, Devons, Short-horns, &c.—H. H. Leeds & Co., New York.
 Buckeye Mowing Machine—John P. Adriaance, New York.
 Standard Scales—Fairbanks & Co., New York.
 Nansmond Sweet Potatoes—W. A. Allen, Vincennes, Ind.

A CHANCE TO INTRODUCE THE GENESEE FARMER.—As announced last month, we have concluded to take subscriptions to the coming *half-volume*, commencing with the next number. This will afford our friends an excellent opportunity of introducing the *Farmer* into sections where we have now few subscribers.

We have no paid agents. It is a labor of love with those who form clubs for the *Genesee Farmer*; and we respectfully invite *all* our friends who wish to extend the usefulness and circulation of the *Farmer*, to show a copy of the paper to their neighbors, and invite them to give it a trial for the coming half-year. They can not have a *cheaper* paper. We will send the coming half-volume to any address for 25 cents.

We will send *five copies* for one dollar, and present the person getting up the club a copy of our beautiful 25 cent book, the *Rural Annual and Horticultural Directory* for 1860, or any of the previous volumes, sent prepaid, by mail.

The club need not all be at one post-office. We will send the papers to as many different post-offices as is desired.

The terms for larger clubs will be found on the last page; also a liberal list of Cash Premiums for the greatest number of subscribers for the coming half-volume.

We would urge every reader of the *Genesee Farmer*, who thinks it deserves encouragement, to speak to his friends and see what he can do to increase its circulation.

TO SINGLE SUBSCRIBERS.—We have on our mail-books about fifteen hundred post-offices where we have but one subscriber at each office. These gentlemen would greatly oblige us if they would act as agents for the *Farmer*. Now is a good time to bring the paper to the notice of your friends and neighbors. The next number commences the half-volume (July to December, inclusive). It will be sent to any address for 25 cents; or for one dollar we will send five copies, and a copy of the *Rural Annual and Horticultural Directory* to the person getting up the club! Will not our friends—will not *you*, reader—see if there are not five persons who would be willing to give the *Farmer* a trial for six months? They surely will not repent doing so. Let us hear from you immediately. The papers will be sent to each subscriber, so that you will have no trouble. The subscribers need not all be at one post-office; we send wherever the members of the club desire.

For further inducements to form clubs see last page of this number. Persons residing in places where we have now but few subscribers, could easily take the largest of our cash premiums. Again we would ask *you*, kind reader, to see what you can do for us.

CLUBS—CLUBS—CLUBS.—The large circulation of the *Farmer*, and the low price at which it can be afforded in consequence, are mainly owing to the kindness of our friends in forming clubs. If those who like the paper would tell their neighbors of our offer to send five copies of the *Farmer* for the remainder of this year for one dollar, we should feel under renewed obligations to them, and our circulation would be greatly augmented; and with it our ability to improve the contents and appearance of the paper. Form clubs, then—form them *now*. We feel sure that all true friends of agricultural and horticultural improvement are willing to engage in this work from love to the cause; but in addition to this our inducements in the form of Specific and Cash Premiums are certainly most liberal. We desire to compensate all who work for us. See our offer of Cash Premiums for clubs on the last page of this number.

CASH PRIZES—CASH PRIZES—CASH PRIZES.—On the last page of this number will be found a list of Cash Prizes for the largest clubs of subscribers to the forthcoming half-volume of the *Genesee Farmer*. They are the same in number and amount as last year, and will undoubtedly be taken by small clubs. Thus, last year a club of 22 subscribers to the half-volume took a prize of \$1; 23 a prize of \$2; 24, \$3; 25, \$4; 27, \$5; 28, \$6; 29, \$7; 30, \$8; 32, \$9; 36, \$10, etc. We would ask each one of our friends to interest himself in competing for these premiums, or of inducing some of his neighbors to take hold of this matter. A very little effort would enable any one to get up a club large enough to take one of the highest of these Cash Prizes.

A SET OF THE RURAL ANNUALS FOR ONE DOLLAR.—We can furnish a few complete sets of the *Rural Annual and Horticultural Directory* for the years 1856-7-8-9 and '60. They will be sent prepaid by mail to any address for one dollar. A single number, for any year, will be sent for 25 cents. Our friends who have not complete sets should avail themselves of this offer at once.

NOTES ON THE WEATHER FROM APRIL 15TH TO MAY 16TH, 1860.—The first half of April was a degree above the mean temperature, and the last half near two degrees below the mean; so that the average of the weather is nearly half a degree below that for April in 23 years, or is 43.5°, being 2° warmer than April, 1859.

Most of the snow and rain fell in the first half of the month, and gave, in the whole, 1.79 inches—much less than the average for this month.

A thunder-shower before 3 A. M. on the 17th; thunder heavy and hard rain for a few minutes. Air quite cold all day, and cold, raw winds and weather followed. Rain on 22d and 23d, followed by a cold period and snow on the 24th, which killed the fruit of the early maples. Quite a frost on the 28th. The 30th had the highest temperature at noon, 73°, but the day was equally warm on the 20th, the average of both being 58°. On the 25th, cotton was injured by frost at Memphis, Tenn., and a little later at more southern fields.

Vegetation did not advance rapidly except on the 20th, and the last two days of the month. Apricots in bloom on 16th, and some cherries on the 30th. Adder tongue and Wake Robin flowered near the middle of April; and the common elm is full of fruit, as it blossomed early. The fields of wheat look fine, and the grass is starting well.

Fields have been planted about the city for early potatoes; lettuce and spinach abundant the last week, as the former is raised under glass.

The heavens in the west have been brilliant from the presence of Jupiter, and of Venus now near her greatest elongation, and the constellations of Leo, Orion, and the star Sirius, etc. The occultation of Venus by the moon on the 24th was not visible here on account of clouds, but that of Jupiter on the 27th could not be seen at this latitude, though Jupiter came too near the moon to be visible in the moon's light without a telescope. Wonderful are the works of God in the heavens and on the earth.

May began warmer, as April had closed quite warm, though the first four days were colder than any till the 15th. The first half has been uncommonly warm, near 1.5° warmer than the same part in 1859. From the 4th to the 8th of May last year, for five days, the heat was greater than the hottest in the present half, but it continued one day longer this year, that is, from the 4th to the 9th, or six days. The hottest was 83°, but last May 86°, and the hottest mean of a day 63.3°, but last year in May, 73°. The vegetation was very rapid, last year as well as this, in this half of the month.

Mean heat of this half, 61.4°, while that in 23 years was 53.2°—the warmest first half of May for 27 years.

The blossoms of cherry and peach fell off a week prior, but the pear, apple, quince, old red cherry, etc., give high beauty to nature. The four varieties of lilac (*Syringa*), and the rare plant Judas Tree (*Cercis*), are covered with bloom. The garden plants in bloom are very numerous.

Cucumbers, protected under glass at Lockport, have been in market for near a fortnight, and are now plenty at a good price on the 15th.

The drouth, which began to be dreaded, ceased on the rain of the 10th and 11th.

The fields of wheat give good promise of abundance. The farmers must have had a fine time for their spring work.

LAST YEAR'S CROPS IN IRELAND.—MR. DONNELLY, the Registrar-General of Ireland, has just published tables showing the estimated average of the crops in Ireland for the past year. There was a great diminution in the yield as compared with the previous year. The cereals fell off 9,468,152 bushels; potatoes 562,702 tons, or "about sufficient to supply every family in Ireland (averaging five persons to a family,) with a stone of potatoes each day for nearly two months and a half." The only crop showing an increase is flax, which yielded 3,994 tons above the produce of 1858; but this was owing to 44,636 acres more having been sown in 1859. The *Mark Lane Express*, of a late date, remarks that this falling off of the crops in Ireland "is very likely, indeed certain, to have an influence on the price of wheat should the present summer prove unpropitious."

FIFTY THOUSAND SUBSCRIBERS TO THE GENESEE FARMER. Thanks to our numerous friends who have kindly undertaken to act as agents for the *Genesee Farmer*, we confidently expect to be able soon to announce that it has fifty thousand subscribers. Let all our friends who are pleased with the paper recommend it to their neighbors who do not now take it, and ask them to give it a trial for the coming six months, commencing with the next number. If they would do so we shall soon have what we aim at—fifty thousand subscribers. Recollect we will send five copies for one dollar, and a copy of the *Rural Annual*, prepaid by mail, to the person getting up the club!

On the last page will be found still greater inducements to form clubs.

LIGHT LAND AND LIGHT CROPS.—An auctioneer was selling a lot of land. "Gentlemen," said he, "this the most delightful land; it is the easiest land to cultivate in the country—it is so light—so very light. Mr. PARKER here will corroborate my statement; he owns the next patch, and will tell you how easily it is worked."

"Yes, gentlemen," said Mr. PARKER, "it is very easy to work it, but it's a plaguety sight easier to gather the crops!"

FRUIT-GROWERS SOCIETY OF WESTERN NEW YORK.—The June meeting of this Society will be held at Buffalo, June 27 and 28. There is no more useful Society than this, and we hope the meeting will be largely attended. There will be an exhibition of fruits. See advertisement in another column.

CUTS FOR SALE.—We are preparing a book of impressions of the wood cuts used in the *Genesee Farmer* and *Rural Annual*. It will be sent to all who wish it on the receipt of six cents to pay postage. An index is given showing where descriptions of the cuts will be found.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY, 1860.—This beautiful and useful work will be sent to any address on the receipt of 25 cents; and any one who gets up a club of five subscribers to the half-volume of the *Farmer* will receive a copy of the *Rural Annual* free.

The number of horses in the world has been estimated at fifty-seven and a half millions.

GENESEE VALLEY HORTICULTURAL SOCIETY.—The June exhibition will be held in this city June 22. Great efforts will be made to render it one of the best exhibitions we have ever had. Our friends from abroad would do well to attend.

MARKET REPORTS.—Our columns are so crowded this month, and farmers have so little to sell at this season, that we again omit our usual market reports. After this, they will appear regularly.

MR. B. W. DAVIS, of Shiawassee Co., Mich., under date of April 15th, says: "Our spring is opening fine and early, with a prospect of an abundance of fruit. The wheat also looks well.

Inquiries and Answers.

WHEEL CULTIVATORS.—Can you or some of your correspondents inform me who manufactures wheel cultivators in New York State, and at what price they can be had? I think they would be a valuable addition to our implements on our prairie farms.—F. H. W., *Prairie Ridge, Iowa.*

CARROTS.—Can you or any of your readers inform me through the *Farmer* which is the most nutritious, the *White Belgium* or the *Orange* carrot? The *White* seems to make the largest growth, and the *Orange* seems the most compact in texture.—CLARK NOETON, *Portage Co., Ohio.*

BROOM CORN.—Will some of your experienced correspondents give us an article on the cultivation, management, harvesting, packing, preserving and marketing broom corn?—C. R., *Leeds, N. Y.*

WEIGHT OF CLOVER SEED IN THE CHAFF.—Can some of your readers give some general rule how to ascertain the weight of a bushel of clover seed in the chaff?—V. W., *Ganges, Mich.*

CHESTER WHITE HOGS.—Can some of your correspondents, who are acquainted with this breed, give us a description of them and their peculiarities?—B. H. WILDER.

LINSEED OIL FOR CALVES.—In the absence of oil-cake, will it answer to feed a little linseed oil to calves? if so, how much at a time?—A. SUBSCRIBER, *Delhi, N. Y.*

WILD COCKLE.—Can any of your correspondents inform me of the most effectual way to destroy wild cockle?—JNO. W. ROSSER, *London, C. W.*

DITCHING MACHINE.—Can you inform me who makes the best ditching machine, and the price?—JAMES J. BRADY, *St. Catherine's, C. W.*

WAGON AXLE.—Can any of your friends tell the proper "set" for a wagon axle?—W. J., *Hartwood, Va.*

POTATO MUSH FOR CALVES.—Several correspondents are anxious to know how to make the potato mush for calves, given in a short article in our January number, by J. B. M. We should be much obliged if the writer would give us her process.

ALFALFA.—(ALEX. HODGSON, *P. G. Mills, Pa.*) This plant is a variety of Lucerne, or rather, it is the Spanish name for that plant when grown in South America, and somewhat altered in appearance, and enlarged in productiveness, under the influence of a warm climate.

INSECTS.—(J. A. R.) You will find an article in the *Rural Annual and Horticultural Directory* for 1860, on Insects injurious to Grain, Fruit and Vegetables, which contains just the information you ask for. We will send it you prepaid by mail for 25 cents.

SCALES.—(R. S. T., *Ovid, N. Y.*) You can get just the Scale you want from FAIRBANKS & Co., 189 Broadway, New York. Their Scales are justly celebrated for their accuracy and durability. For further information, write to them for one of their circulars.

DISEASES OF ANIMALS.—(C. S.) You will find a short article on the diseases of horses, cattle, sheep and swine; remedies, etc., in the *Rural Annual* for 1860. The remedies are those prescribed by the best veterinary surgeons.

TENTS FOR FAIRS.—(*Secretary,*) MR. JAMES FIELD, of this city will supply you with tents for your Fair at a reasonable rate. See his advertisement in this number. For particulars address Box 701, Rochester, N. Y.

Notices of Books, Pamphlets, &c.

THE SATIRES OF JUVENAL, PERSIUS, SULPICIA, AND LUCILIUS: Literally Translated into English Prose, with Notes, Chronological Tables, Arguments, etc. By the Rev'd LEWIS EVANS, M. A. To which is added the Metrical Version of JUVENAL AND PERSIUS, by the late WM. GIFFORD, Esq. New York: HARPER & BROS. Price 75 cents.

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 10, 11 and 12. New York: D. APPLETON & Co. Price 15 cents per number.

THE HAUNTED HOMESTEAD. By the American authoress, MRS. EMMA D. E. N. SOUTHWORTH, author of "The Lost Heiress," etc., etc., with Autobiography of the Author's Life written by herself. T. B. PETERSON & Bros., 306 Chestnut St., Philadelphia. Price \$1.25.

MORPHY'S GAMES: A Selection of the best Games played by the Distinguished Champion in Europe and America, with Analytical and Critical Notes. By L. LOWENTHAL. New York: D. APPLETON & Co. Price \$1.25.

THE NORTH BRITISH REVIEW: Vol. 27, No. 1. N. York: LEONARD, SCOTT & Co. Price \$3.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

Special Notices.

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.—The June meeting of this Society will be held at Buffalo, on the 27th and 28th of June. A fine show of seasonable fruits is expected.

By order of the Council,

C. P. BISSELL, Sec'y.

We would call the attention of School Committees, Superintendents and Teachers, to an advertisement in this issue of PHINNEY, BLAKEMAN & MASON'S publications of Town's Revised Series of Text Books for Schools.

These books are now coming into general use, and are regarded as among the best ever put before the public.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

NANSEMOND SWEET POTATCES—Carefully packed and shipped to any part of the United States for \$1.50 per M. during June.—14 W. A. ALLEN, Vincennes, Ind.

FAIRBANKS'



STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.

Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular. FAIRBANKS & CO.,
189 Broadway, New York.
S. W. STEVENS, Traveling Agent. Post Office address, Rochester, N. Y. June-6t

**BUCKEYE MOWING MACHINE,
WITH FLEXIBLE FOLDING-BAR.**

THE Farmer intending to purchase a Mower will find it to his advantage to examine the BUCKEYE FOR 1860, which combines all those features which have given it its present reputation, that of

The Best Mowing Machine in the World!

Together with several other important improvements added the present season.

The cutter-bar is attached to the frame by a double-hinge joint, which allows either end or the whole to rise and fall, to conform to inequalities of the land. By means of a lever the cutters can be raised to pass obstructions or over cut grass; in mowing can turn either to right or left; always throws itself out of gear in backing, and backs with the ease of a cart; is light draft—free from side draft; has no weight on the horse's neck; is safe for the driver; almost noiseless in its operation; works well on any land—side hills or salt meadows—and in any grass, whether lodged or standing, at a slow walk of either horses or oxen.

When not in use, the Cutter can be instantly folded over the front of the frame, and the Mower then driven any distance on the road. This feature belongs exclusively to the BUCKEYE MOWER.

Orders must be sent early to secure Machines. My unfilled orders of the past season amounted to several hundred.

Descriptive Circulars, with testimonials, forwarded by mail
JOHN P. ADRIANCE,
Manufacturer and Proprietor,
No. 165 Greenwich street, (near Cortlandt), N. Y.
POPE, ALEXANDER & CO., Manufacturers,
Syracuse, N. Y.
G. SWEET & CO., Manufacturers,
Dansville, Livingston Co., N. Y.
HIRAM CURTIS, Manufacturer,
Albion, Orleans Co., N. Y.
June-1t

WALDBERG, NEAR HAYERSTRAW, N. Y.

**FIRST PUBLIC SALE OF THOROUGH-BRED
Ayrshires, Devons, Short-horns, &c.**

H. H. LEEDS & CO. announce for sale by Auction, without reserve, on Wednesday, 27th June next, choice selections of the above varieties, from the herds of A. B. COXGER.

Suffolk—Horo (18,799), Messenger (3,155), and Jacintha's Romeo and their get, &c. Among the Short-horns, that of Ereter (198), Frank Quarterly (205), &c. Among the Devons, prize Bull Marston 2d, and the get of Imported Eric, among the Ayrshires, will be offered; with a few Berkshire, Essex and Suffolk Hogs; and also a trotting Stallion, Horses, &c.

Catalogues with full pedigrees, showing the remote strains of blood in the Devons and Short-horns, collated with care from the Herd-Books, may be had after the 1st day of June, on application to the owner, or T. HOWARD PATTERSON, Herdsman, &c., Hayerstraw, N. Y.; or H. H. LEEDS & Co, 28 Nassau St., New York City. June-1t

Turnip Seed! Turnip Seed!

SAVED from Selected Stock, of the finest qualities.

EARLY WHITE DUTCH TURNIP.....	per lb.,	75 cents
WHITE STRAP LEAF	"	75 "
RED-TOP STRAP LEAF	"	75 "
ENGLISH WHITE GLOBE	"	59 "
ENGLISH WHITE NORFOLK	"	59 "
FINE YELLOW STONE	"	75 "
YELLOW AMBERDEN	"	53 "
ROBSON'S GOLDEN BALL	"	75 "
LARGE WHITE FRENCH	one of the finest,	75 "
WAITE'S ECLIPSE	"	75 "
GREEN GLOBE	"	50 "
DALE'S HYBRID	"	50 "
ASHCROFT'S SWEDISH OR RUTA BAGA	"	75 "
IMPROVED AMERICAN	fine,	75 "
SKIRVING'S IMPROVED	fine,	50 "
PURPLE TOP	"	50 "
LAING'S	fine,	50 "
DICKSON'S IMPROVED	"	50 "
MARSHALL'S IMPROVED	"	50 "

One pound of Turnip Seed is sufficient for an acre of ground.
J. M. THORBURN & CO.,
June-1t 15 John Street, New York.

**U. S. TENT AND FLAG MANUFACTORY.
No. 42 Exchange Street, Rochester, N. Y.**

TENTS to rent of the following sizes, suitable for the purposes designated:

For Agricultural Fairs, Conferences, Political or other large Gatherings.

80 ft. by 110 ft.	86 ft. diameter.
60 ft. by 90 ft.	70 ft. "
50 ft. by 80 ft.	60 ft. "
15 ft. by 20 ft. fancy	50 ft. "

For Camp Meetings, Military Encampments, Pic Nics, Fishing Excursions, &c.

24 ft. by 30 ft.	12 ft. by 17 ft.
16 ft. by 24 ft.	9 ft. by 12 ft.

Flags furnished with Tents, when required.
Parties wishing to rent, will please address the proprietor, stating what the Tents are to be used for. Also the facilities for transportation. Address JAMES FIELD, Box 701,
June, 1860-8t Rochester, N. Y.

N. B. Several large second-hand Tents for sale cheap—one tent 60 by 90—ten feet wall with seats.

Rochester Central Nurseries.

THE subscriber offers for sale the coming fall an unusually fine stock of Fruit Trees of every description, comprising APPLES, PEARS, CHEERIES, PEACHES, PLUMS, APRICOTS, QUINCES, &c. Also, Currants, Gooseberries, Raspberries, Blackberries, Strawberries, of all the best and most popular varieties.

GRAPE VINES,

Of the best NEW and OLD SORTS, are offered at the most reasonable rates; and Dealers and Fruit Growers will find it to their interest to examine our stock.

**ORNAMENTAL TREES, SHRUBS, AND ROSES,
IN GREAT VARIETY.**

DESCRIPTIVE CATALOGUES will be sent to all applicants remitting a stamp for pre-payment of postage.

All communications should be addressed to
June-1t C. W. SEELYE, Rochester, N. Y.

BOTH SIDES OF

THE GRAPE QUESTION

A NEW WORK ON THE GRAPE—by WM. SAUNDERS, J. J. COPE, and J. M. MUMFORD; embracing more than is novel, interesting and valuable, than any work ever published on the subject.

Price by mail, prepaid—cloth, 85 cents; paper, 25 cents.

Publisher, A. M. SPANGLER,
Farmer and Gardener Office, Philadelphia.
Send for specimen copies of Farmer and Gardener. June-1t

CHOICE ALDERNEY OR JERSEY CATTLE FOR SALE.

One Bull 3 years old, perfectly gentle and a superior stock-getter; one Imported Cow 7 years old, and two Heifers, 2 years old, the milkers. All are pure, thorough-bred animals, and each was winner of a first prize at last Fair of American Institute, over several competitors. The cattle can be seen at Fort Washington, on Hudson River Railroad. For further particulars, address
JOHN HAVEN,
May-21st Washington Heights' P. O., N. Y.

40 SUPERIOR SPANISH MERINO BUCKS for sale by
June-6t GBO. CAMPBELL, West Westminster, Vt.

ATTENTION, FARMERS!

FROM the unparalleled success of the KETCHUM MACHINE the past season, I am induced to build for the harvest of 1860, A LARGER NUMBER THAN USUAL, and I offer them as the most perfect machine I have ever manufactured, and at prices to correspond with the times.

Howard's New Two-Horse Mower—all iron—light draft—no side draft—no driving fast to have them work well—no clogging—price only \$100.

Howard's New One-Horse Mower is of easy draft for one horse, and capable of cutting six to eight acres of any kind of grass per day—price \$75.

Wood Frame Two-Horse Mowers—price \$80.
Combined Mower and Reaper (Iron), with late improvements—look first premium at United States' Fair at Chicago last fall—price \$130.

All of the above Machines have Emery's Adjustable Lever and Roller, and various other improvements, and are warranted. Send for a pamphlet. Address
June—2t R. L. HOWARD, Buffalo, N. Y.

MOWING MACHINE IMPROVEMENTS.

HAVING made very important improvements in the KETCHUM MACHINE within the last two years, I have done so with a view of their being attached to any Machine of my make prior to 1858, and all who desire will be furnished them at moderate prices. Those who have Machines numbering above 1540, with wood finger bars, can have the iron finger bars and all late improvements attached, which will very much lessen the draft of the Machines, and make them in many respects better than when new.

The improvements consist of a guard finger that will not break nor clog; an outer shoe with roller, that very much assists in turning at the corners, and the direct draft of the machine; a lever with roller, which is to be attached behind the inner shoe, by which the driver in his seat can raise the finger bar over obstructions, assist in backing, and transporting the Machine from field to field.

In ordering the improvements or extras, be particular and give the number of your Machine. Address
June—2t R. L. HOWARD, Buffalo, N. Y.

FEMALE AGENTS WANTED.

\$2 to \$3 A DAY.—FEMALE AGENTS are wanted, at home or to travel, for the

MAMMOTH "FAMILY PICTORIAL,"

an elegant Periodical, of Home Literature, Pure Morality, and practical Common Sense. The largest, best, handsomest and cheapest Illustrated Family Paper in the world, at only 75 cts. a year; 40 cts. for six months, or 25 cts. for three months, and ONE-HALF OF THE MONEY given to Female Agents. Enclose a three-cent stamp, for specimen copies, &c., to MARIE LOUISE HANKINS & CO., Publishers, 429 Broadway, New York.
June—1t

FARM FOR SALE OR EXCHANGE.—A Farm of 154 acres, near the village of Burdett, in Schuyler Co. N. Y., is offered for sale—100 acres of which is in a high state of cultivation, the remainder being timber land. There is a good house, two barns, sheds, wagon house, etc., a large orchard, and well watered. It is offered for sale cheap, or exchange for a farm of 300 acres, or thereabouts. No objections to exchange for a farm West, where it is near the Railroad and good markets. For particulars, address
1t G. A. KIMBLE, Burdett, Schuyler Co., N. Y.

DESIRABLE FARM FOR SALE IN VIRGINIA.—250 Acres, 6 miles from Fredericksburg. 1600 Apple, Peach and Dwarf Pear Trees; one acre each Raspberries and Strawberries. Soil clayey loam, clay subsoil. Climate pleasant, and location as healthy as any in the United States. Price, \$25 per acre. Cause, going South.
June—3t ABRAM VAN DOREN, Falmouth, Va.

AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, Secretary.
June—1f J. K CHAPPELL, Agent.
64 Exchange Street, Rochester, N. Y.

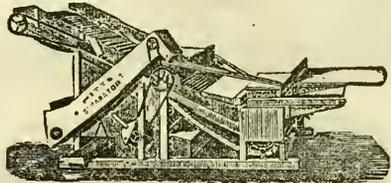
RUSSIA OR BASS MATS—Selected expressly for budding and tying. GUNNY BAGS, TWINES, HAY ROPE, &c., suitable for Nurserymen and Farmers, for sale in lots to suit, by
Sept., 1859.—1y* D. W. MANWARING, Importer, 248 Front Street, New York.

PITTSBURGH WATER CURE—A first-class CURE, in its sixth year. Room for over 100 patients. Send for circular to
June—2t* Dr. FREASE, Pittsburg, Penn.

LADIES, MEND YOUR OWN TIN-WARE—Implement, materials and printed directions sent by mail for 25 cents, by
June—1t* F. I. SAGE, Middletown, Conn.

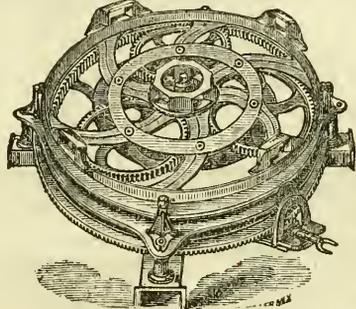
ROCHESTER AGRICULTURAL WORKS.

IMPROVED THRESHING MACHINES AND HORSE POWERS.



THE ABOVE cut is a representation of the justly celebrated PITTS' MACHINE FOR THRESHING AND CLEANING GRAIN at one operation. It is the best Machine in existence.

The following cut represents an improved, all Iron, EIGHT or TEN HORSE POWER.

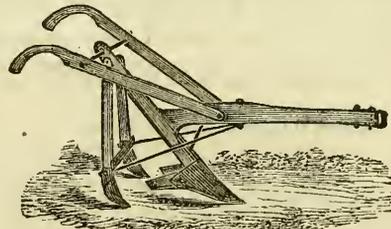


As a superior and every way reliable Horse Power, the above stands unrivalled.

We call attention to the fact that we are now manufacturing the above Machines, at Rochester, N. Y., in a more substantial and durable manner than any hitherto built in this city, having all the latest improvements.

We also make Pitts' celebrated DOUBLE PINION EIGHT OR TEN HORSE POWERS.

WRIGHT'S PATENT HORSE HOE OR CULTIVATOR PLOW.



The above invaluable implement received the First Premium (a SILVER MEDAL) at the Great National Fair, held in Chicago, Sept., 1859. The following are some of the advantages this Cultivator has over every other kind now in use:

1. Lightness and durability, being made of the best quality of Steel, highly polished, and the whole implement weighing from 50 to 60 lbs.
2. Adaptation to more kinds of soils than any other Cultivator known; being a perfect and thorough Cultivator when used with all the teeth on, leaving the ground even and level, and working nearer the rows than any other Cultivator.
3. By removing the small teeth, and attaching the wings to the shovel, it is the most perfect implement for hilling that can be produced.
4. It works equally well in corn, cotton, or any kind of crop requiring cultivating, and in most cases hand hoeing can be dispensed with.
5. Its cheapness, considering the many kinds of work to which it can be applied, the farmer having in one implement all that is necessary for cultivating and hilling any kind of crop, or for covering and digging potatoes.

Price \$8; ground and polished, \$8.50.
Rulofson & Harvey's celebrated STRAIGHT DRAFT PLOW, equally well adapted to two or three horses; also, THE ROCHESTER CUTTING Box, are manufactured by me. Orders are respectfully solicited.
ALEXANDER GORDON,
68 South St. Paul St., Rochester, N. Y.

"HOLD FAST THAT WHICH IS GOOD."

To School Committees, Superintendents, and Teachers.

Town's Revised Series of Text Books.

BY
SALEM TOWN, LL.D.
PUBLISHED BY

Phinney, Blakeman & Mason,

No. 61 WALKER ST., NEW YORK.

This popular Series embraces:

- Town's Spelling-Book.
- Town's Speller and Definer, Revised and Enlarged.
- Town's First Reader, half-bound.
- Town's Second Reader, do.
- Town's Third Reader, do.
- Town's Fourth Reader, cloth.
- Town's Fifth Reader, do.
- Town's Grammar School-Reader, do.
- Town's Analysis, new and improved edition, half-bound.

It is estimated that over

Ten Million Copies Have Been Sold!

And during the last six months their circulation has been increased Thirty per cent.

This fact speaks louder than all the written testimonials which could be gathered.

In asking the attention of our educational friends to this series, the publishers would gratefully acknowledge the unprecedented favor it has already received. They regard its present popularity and rapid sales as highly complimentary testimonials of its superior merit. It is extensively used in NEW ENGLAND, NEW YORK, NEW JERSEY, PENNSYLVANIA, VIRGINIA, OHIO, MICHIGAN, and many others of the SOUTHERN and WESTERN STATES, and also in CANADA and CALIFORNIA.

The following are some of the general characteristics of the series:

1. It is designed for the use of Common Schools, High Schools, and Academies.
2. It has been thoroughly tested in the school-room, and proved to be eminently practical, and therefore just what is wanted to insure the rapid progress of the learner.
3. The elementary sounds of the language, with their various combinations, are fully presented and exemplified.
4. The etymological rules for the cultivation and management of the voice are philosophical, and easily understood and applied by the pupil.
5. The numerous illustrations of the rules are happy in their caption, and admirably arranged for practical use.
6. The Lessons, both in reading and spelling, meet the progressive wants of all grades of learners, from the abecedarian to the most advanced classes.
7. The selections are particularly interesting and instructive, while at the same time they furnish practical illustrations of the principles of elocution.
8. A high tone of morality pervades the selections, making them not only entirely unexceptionable in respect to language, sentiment, and taste, but most happily adapted to improve the moral qualities.

Town's New Speller and Definer,

which has an immense circulation, and is furnished at a very low price, is now printed from ENTIRELY NEW and CAREFULLY REVISED ELECTROTYPED PLATES.

It is a neat volume, durably bound, and having been compiled with scholarly care and judgment, by DOCTOR TOWN himself, one of the oldest, most experienced, and most honored educators in the country, constitutes, in all respects, a MODEL OF ELEMENTARY INSTRUCTION.

Town's Analysis of Derivative Words.

This ORIGINAL and eminently practical work teaches the structure and derivation of the words of our Language, giving their roots, component parts, etc.

It is designed to follow the New Speller and Definer, and to prepare the pupil for a thorough and intelligent study of the higher numbers of the Series.

For Sample Copies, or Terms of Introduction, apply to the publishers. June-11

ATTENTION SUNDAY SCHOOLS.

BOOKS FOR NOTHING!

SUNDAY SCHOOL Superintendents, Teachers and Scholars, are hereby notified that we propose to sell our magnificent and popular engraving of Thorwaldsen's

CHRIST AND HIS APOSTLES,

at such a price per hundred to Sunday Schools as will enable the children to realize from their sale, at our own ordinary prices, the means to purchase

A SUNDAY SCHOOL LIBRARY.

The profit on one hundred copies will secure

One Hundred and Fifty Volumes

of excellent Sunday School Books, and as the picture is in universal demand among Christian families of all denominations, none of these institutions will find any difficulty in disposing of at least that number in the churches to which they belong. One dollar for a superb picture of first-class size, viz., three feet by two, is a sum so small in proportion to the actual value of such a beautiful illustration of Gospel History, that parents are glad of an opportunity of supplying their families with such a subject for profitable contemplation, and at the same time affording their children an opportunity of assisting in the formation of a religious library for their own spiritual and mental profit.

DAYTON & CO.,

May-31*

37 Park Row, New York.

NEW YORK STATE AGRICULTURAL SOCIETY.

PREMIUM ON FARMS, 1860—Premium for best grain farm of not less than 50 acres, under culture, \$50 00
Best grazing and cheese dairy farm, not less than 50 acres, under culture, \$50 00
Best grazing and butter dairy farm, as above, \$50 00
Best cultivated farm, not less than 50 acres, (woodland included), \$30 00

Competitors for the premiums on farms are desired to give notice to the Secretary, on or before the 1st of July, of their intention to compete; and some member or members of the Executive Committee will be assigned to visit and examine the farms, and report on the same. B. P. JOHNSON, Secretary.

Agricultural Rooms, Albany, }
April 12th, 1860. }

May-31

Kedzie's Rain and River Water Filter



IS no longer an experiment. It possesses every practical and scientific arrangement for rendering the most impure Rain and River Water free from all decomposed organic matters and gases, taste, color and smell.

They are PORTABLE, DURABLE, CONVENIENT and CHEAP; can be transported any distance in safety, and are sure to give satisfaction.

Manufactured by

JAMES TERRY & CO.,

Rochester, N. Y.

Descriptive circulars sent free.

April, 1860.—31

Thorough-Bred North Devons

AT PUBLIC AUCTION.

THE subscriber intends holding his Second Public Sale of Devon Cattle on Wednesday, the 6th day of June next, when he will offer between 20 and 30 head, males and females, of his own breeding—all Herd-book animals and of superior excellence. As at his previous sale, each lot will be started at a very low price, and sold without reserve to the highest bidder over that amount.

Catalogues containing pedigrees of the animals to be sold, and full particulars as to terms, &c., will be ready by the 15th of April, and will be sent, on application, to all desiring it.

C. S. WAINWRIGHT,

The Meadows, Rhinebeck, N. Y.

April-31

JOHN MERRYMAN,

President of the Maryland State Agricultural Society,

BREEDER OF

Hereford Cattle, Hampshire Down Sheep & Berkshire Hogs.

THE BEST specimens of the above stock, of any age, for sale. Stock delivered in Baltimore, if desired, on Railroad Cars or Boats. Orders must be addressed to JOHN MERRYMAN, May-21* Hayfields, near Cockeysville, Baltimore Co., Md.

"JERSEY" CATTLE—Commonly known as "ALDERNEY," SHANGHAI, or TARTAR Sheep for sale. Apply to WILLIAM REDMOND, 43 Barclay St., New York.

May-31

GEO. F. CURWEN West Haverford, Delaware County, Pa., Breeder of DEVON CATTLE and ESSEX HOGS. May 41

J. & H. H. SPENCER, Importers and Breeders of South Down & Hampshire Down Sheep, Whitey, Brooklyn P.O., C.W. *

WHAT EVERYBODY WANTS.

EVERYBODY'S LAWYERAND
COUNSELLOR IN BUSINESS.

BY FRANK CROSBY,

OF THE PHILADELPHIA BAR

- It Tells You** How to draw up PARTNERSHIP PAPERS, and gives general forms for AGREEMENTS of all kinds, BILLS OF SALE, LEASES and PETITIONS.
- It Tells You** How to draw up BONDS and MORTGAGES, AFFIDAVITS, POWERS OF ATTORNEY, NOTES and BILLS of EXCHANGE, RECEIPTS and DEEDS.
- It Tells You** The Laws for the COLLECTION of DEBTS, with the STATUTES of LIMITATION, and amount and kind of Property EXEMPT from EXECUTION in every State.
- It Tells You** How to make an ASSIGNMENT properly, with forms for COMPOSITION with CREDITORS, and the INSOLVENT LAWS of every State.
- It Tells You** The legal relations existing between GUARDIAN and WARD, MASTER and APPRENTICE, and LANDLORD and TENANT.
- It Tells You** What constitutes LIBEL and SLANDER, and the Law as to MARRIAGE DOWER, the WIFE'S RIGHT IN PROPERTY, DIVORCE and ALIMONY.
- It Tells You** The Law for MORTGAGERS' LIENS in every State, and the NATURALIZATION LAWS of this country, and how to comply with the same.
- It Tells You** The Law concerning PENSIONS and how to obtain one, and the PRE-EMPTION LAWS to PUBLIC LANDS.
- It Tells You** The Law for PATENTS, with mode of procedure in obtaining one, with INTERFERENCES, ASSIGNMENTS and TABLE of FEES.
- It Tells You** How to make your WILL, and how to ADMINISTER ON AN ESTATE, with the law and the requirements thereof in every State.
- It Tells You** The meaning of LAW TERMS in general use, and explains to you the LEGISLATIVE, EXECUTIVE and JUDICIAL POWERS of both the General and State Governments.
- It Tells You** HOW TO KEEP OUT OF LAW, by showing how to do your business legally, thus saving a vast amount of property, and vexatious litigation, by its timely consultation.

Single copies will be sent by mail, postage paid, to *Every Farmer, Every Mechanic, Every Man of Business, and Everybody in every State* on receipt of \$1.00, or in law style of binding at \$1.25.

\$1000 A YEAR can be made by enterprising men everywhere, in selling the above work, as our inducements to all such are very liberal.

For single copies of the Book, or for terms to agents, with other information, apply to or address

JOHN E. POTTER, Publisher,

May—8t

No. 617 Sansom St., Philadelphia, Pa.

NEW BOOK ON GRAPE CULTURE.

BY WILLIAM BRIGHT,

Logan Nursery, Philadelphia, Pa.

JUST PUBLISHED,

BRIGHT'S SINGLE STEM, DWARE AND RENEWAL SYSTEM OF GRAPE CULTURE.

Adapted to the Vineyard, the Grapery, and the Fruiting of Vines in Pots, on Trellises, Arbors, &c.

IN this work full Directions are given for Cultivating and Fruiting Pot Vines; a new system of Pruning for the Vineyard; New method of making Vine Borders; New Management of Cold Grapery; New Views on Fertilizing the Grape.

This is not a compilation of old matter respecting the Vine, but a *purely original work*, full of new suggestions for planting, pruning, training and fruiting the Grape, under all kinds of culture; drawn from personal experience, and recently confirmed by the opinions of the best Grape-growers in England.

Price of the work, *Fifty Cents* per single copy. Sent by mail to all parts of the United States and Canada, post paid, on receipt of the price. Postage stamps received in payment.

*A liberal Discount to the Trade.

Address

WILLIAM BRIGHT,
627 Market St., Philadelphia.

April—3t

VALUABLE SEEDS!**AGRICULTURISTS AND FARMERS NOTICE!**

1st—THE MUSTANG GRAPE, of Texas. This Grape is: *native of Texas, but will grow finely anywhere.* It bears more fruit than any other vine, which makes the *finest article of Wine*. For preserving, &c., it is unsurpassed.

To those who wish to cultivate, or try it, we will send a large package of the seed for One Dollar, or, if preferred, a package of *Fifty Young Vines, with Roots, fixed so as not to injure* or wither, for Two Dollars, by mail to any address.

HUBERT & CO.,
Little Wichita, Clay Co., Texas.

2d—THE "TURKISH FLINT WHEAT." This celebrate Wheat produces *three times* as much as any other Wheat ever sown. The flour is of the finest and sweetest quality—as white as the driven snow.

Enough seed to produce, at the *first* planting, from 10 to 1 bushels, will be sent in a strong linen sack, by mail, for One Dollar. Address,

"HUBERT & CO.,
Little Wichita, Clay Co., Texas."

3d—THE "PINE-APPLE PUMPKIN." Every housekeeper should have this delicious vegetable. It is better than an "dried peaches," apples, or anything of the kind, for making pies, puddings, custards, etc., or to eat alone.

A large package of seed sent by mail for One Dollar.

Direct to

April—4t

"HUBERT & CO.,
Little Wichita, Clay Co., Texas."

WM. PATERSON'S

Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Newark, N. J.; and by the Manufacturer's agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the maker's name, to whom orders sent with cash or satisfactory references, here or in New York, will be promptly executed.

The aforesaid article consists principally of charred bones, dissolved by sulphuric acid, with a large proportion of Peruvian Guano, and other important ingredients.

The largely increased sales for the last six years, with the unsolicited Reports of Agents, &c., attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently decidedly more profitable.

It has been the aim of the Manufacturer to make this Manufacture what it is avowed to be, and the public may rely assuredly that will continue to be uniform in quality and profitable to the buyer. Circulars, with particular instructions for use, will be sent by mail when requested, or on application to his agents.

May—6t

WM. PATERSON.

PROPOSAL TO ESTABLISH

Sunday School Libraries Free of Cost

WE OFFER our great Gospel Engraving after Thorwaldsen's CHRIST AND HIS APOSTLES, to Sunday Schools, at a price per hundred which will secure them, by re-selling the picture at our regular retail price of a dollar each, a sufficient sum to purchase

Three Hundred Volumes.

This is the most popular religious engraving ever published in America, and the Sunday Schools to which we have supplied copies thus far have found no difficulty in disposing of from one to two hundred (and in one instance three hundred) in the space of from twenty to thirty days. Christian parents everywhere seem more especially anxious to possess the picture now that affords the opportunity of encouraging their children in a good work, and affording them a means of moral and religious instruction. Address

May—3t*

DAYTON & CO.,

87 Park Row, New York.

NEW EVERGREENS

AND many New DECIDUOUS TREES and SHRUBS, selected from all the best sources abroad, can be furnished amateurs at reasonable rates.

The attention of the TRADE is particularly invited to the low prices by the quantity of RARE CONIFEROUS TREES.

For catalogues, address

PARSONS & CO.,

May, 1860.—2t

Flushing, near New York.

BOOK AGENTS WANTED.

FOR CIRCULARS address

GEORGE F. TUTTLE,

May, 1860.—4t

No. 100 Nassau Street, New York.

PINT AND QUART BERRY BOXES—At \$15 and \$20 per 1,000. Address NICHOLAS HALLOCK,
May—2t* Patentee, Queens, Queens Co., L. I., N.Y.

AGRICULTURAL IMPLEMENTS—A general assortment at manufacturers' prices, for sale by A. LONGETT,
May—3t 34 Cliff Street, New York.

SPALDING'S PREPARED GLUE!
 SPALDING'S PREPARED GLUE!
 SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY! **DISPATCH!**

“A STITCH IN TIME SAVES NINE.”

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for lumping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mucilage, being vastly more adhesive.

“USEFUL IN EVERY HOUSE.”

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
 Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
 SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
 SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
 SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
 SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
 SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
 SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
 SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,
 SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by **HENRY C. SPALDING & CO.,**
 48 Cedar Street, New York.
 Address Post-Office, Box No. 8,600. Dec., 1859.—1y

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy. REQUIRE NO PUT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weight truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to **JAMES G. DUDLEY,** General Western Agent,
 April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weight less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by **JAMES G. DUDLEY,**
 April, 1860. 93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DICASTROUS FIRES.

The Safest and Best safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by **JAMES G. DUDLEY,** Sole Agent,
 April, 1860. 93 Main street, Buffalo, N. Y.

ALL KINDS OF AGRICULTURAL BOOKS—Farmers, Gardeners, Nurserymen, Fruit-Growers, Dairy-men, Cattle Dealers, and all persons interested in tilling the soil or adorning their grounds and dwellings, will be supplied with the most complete assortment of Books relating to their business that can be found in the world, by

C. M. SAXTON, BARKER & Co.,
 Agricultural Booksellers, and Publishers of The Horticulturist, No. 25 Park-row, New York,
 Catalogues gratis. Books sent by mail.

AGENTS WANTED. March, 1860—4t

TO HORSEMEN.

WELLING'S WORM DIURETIC AND CONDITION POWDERS, made after Veterinary Physicians' recipes, are very efficacious when given to Horses suffering from inflammation of the lungs, heaves, worms, surfeit, moulting, or when hide-bound. Testimonials from farmers, city-railroad men, and other owners of horses, with directions for use, may be had on application to **SAMUEL G. WELLING,** Apothecary, New Rochelle, Westchester county, N. Y. The trade supplied at \$4 per dozen, large boxes of one dozen doses each. Retail price, 50 cents per box. April, 1860.—3t

A. BROWER'S

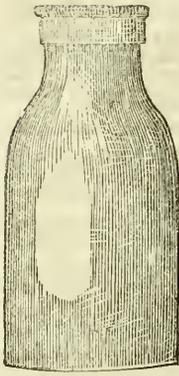
Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather, impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. **A. BROWER & CO.,**
 May—6t. 4 Reade Street, New York.

NO. 1 PERUVIAN GUANO—Government brand and weight on every bag;

SUPER-PHOSPHATE OF LIME.
BONE DUST, LAND PLASTER, &c.,

For sale in quantities to suit purchasers at lowest market prices. Send for a circular. **A. LONGETT,**
 April, 1860.—3t 34 Cliff street, New York.



FRESH FRUITS
ALL THE YEAR!
 THE YEOMANS'
FRUIT BOTTLE!

FOR Utility, Convenience, Economy and Safety is unequalled for preserving Fruits in a fresh state, in any climate, an indefinite time.

"Having used these Bottles we find them exceedingly convenient, and just the thing needed."—J. J. THOMAS, in *Register of Rural Affairs*.

For Descriptive and Price Circulars, address the Proprietor at Walworth, Wayne Co., N. Y.
 May—11 T. G. YEOMANS.

STOREKEEPER'S DELIGHT!

VANDERHOOF'S PATENT PAPER BAGS—More convenient and economical than wrapping paper. Premium Fancy Flour and Grain Bags. Send for price catalogue.
 June—21 171 West Street, New York.

CONTENTS OF THIS NUMBER.

Do Animals consume food in Proportion to their live weight. 169
 Mapes' Progressive Primaries..... 170
 The Cultivation of Ruta Grapes, or Swedish Turnips..... 171
 Plants in an Acre. Good vs. Poor Dairy Cows..... 172
 Dr. John Lindley..... 173
 Hens Eating their Eggs Improved Sock in California..... 174
 Fall Feeding Grass Land Beneficial. Potatoes in Bermuda. 174
 Design for a Small Farm-house..... 175
 Marking Sheep. Marsh Hay. Bugs and Cucumbers..... 176
 Extracts from Correspondence..... 176
 Is it Best to Hill Corn, or not..... 176
 How Deep should we Plow. Pea Straw..... 177
 Streams in Pasture Land. Cleaning Carrots..... 177
 Chinese Sugar Cane for Podder..... 177
 Some Hints on Butter Making. Affairs in Iowa..... 178
 Wide Tire. Stacking Wheat in the field..... 178
 Farmers should Produce their own Fertilizers..... 178
 How to get early Wheat. Neglected Dwarf Pear Trees..... 178
 Farmers must Raise more Roots..... 178
 Spirit of the Agricultural Press..... 179
 Fattening Poultry. Storm in Ohio. Changing Pastures..... 179
 Nature's Mode. Potatoes in California. Air Drains..... 179
 The Dorking Fowl. Lice on Fowls. The Poultry Guide..... 180
 Marking Sheep. Recipe for making good Hard Soap..... 181
 Stock at the Fair of the Royal Agricultural Society..... 182
 Apples for Feeding..... 183
 Erupture of a Colt Cured. Flax Seed..... 184

HORTICULTURAL DEPARTMENT.

The Currant or Gooseberry Worm Stanwick Nectarine..... 185
 Phycellus Capensis. Carrying Strawberries to distant Market..... 186
 Improved Watering-Pot. Wood-Pecker—Baldwin Apple..... 186
 Evergreens..... 187
 Interesting Notes on the Peach, by a Lady..... 188
 Renovating Old Apple Trees. Soap Suds..... 188
 Extracts from "Notes of an European Tour"..... 189
 Japan Peas. Tomatoes for Milch Cows. Locust Trees..... 189

LADIES' DEPARTMENT.

Original Domestic Receipts..... 190
 Young Housekeepers. Woman's Occupation..... 190

EDITOR'S TABLE.

Items, Notices, &c..... 191
 Notes on the Weather..... 192
 Inquiries and Answers..... 193
 Notices of Books, Pamphlets, &c..... 193

ILLUSTRATIONS.

Common Purple-top Swede..... 172
 Skiving's improved Purple-top Swede..... 172
 Laing's improved Purple-top Swede..... 172
 Portrait of Dr. John Lindley..... 173
 Design for a small Farm-house (3 figs.)..... 175
 Dorking Fowls. Foot of a Dorking..... 180
 Cut illustrating a plan for Marking Sheep..... 181
 Portrait of Short-horn Cow "Miss Gwynne"..... 184
 Improved Watering-Pot..... 186
 Norway Spruce..... 187

TO THE FRIENDS OF THE
GENESEE FARMER.

EXTRAORDINARY OFFER!

Subscriptions for the Half Volume.

Desirous of reaching the large number of farmers who do not now take a good monthly agricultural journal, we have concluded to take subscriptions to the coming half volume (July to December inclusive), at the following low rates:

TERMS FOR THE HALF VOLUME.

We will send the *Genesee Farmer* for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for \$1, and a copy of our beautiful 25-cent book, the *Rural Annual and Horticultural Directory*, prepaid by mail to the person getting up the club; eight copies for \$1.50, and a *Rural Annual*, prepaid by mail, to the person getting up the club; sixteen copies for \$3, and a *Rural Annual* and an *extra copy of the Farmer* for the year, or two for the half volume, to the person getting up the club.

CASH PREMIUMS FOR AGENTS

Who Get up the Largest Clubs of Subscribers for the Half Volume.

In order to stir up a little emulation among our friends who are disposed to form clubs, and also to reward them for their labor we offer the following liberal list of Cash Premiums:

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 15¢ cents each) before the 15th day of October, 1860.
2. FIFTEEN DOLLARS to the person who shall send us the second highest number, as above.
3. TEN DOLLARS for the third list.
4. NINE DOLLARS for the fourth.
5. EIGHT DOLLARS for the fifth.
6. SEVEN DOLLARS for the sixth.
7. SIX DOLLARS for the seventh.
8. FIVE DOLLARS for the eighth.
9. FOUR DOLLARS for the ninth.
10. THREE DOLLARS for the tenth.
11. TWO DOLLARS for the eleventh.
12. ONE DOLLAR for the twelfth.

Our Agents, and Competitors for the above Premiums will remember that our terms are always IN ADVANCE.

It is not necessary that members of a club should be all at the same office. We will send to as many different post-offices as there are members in the club, if desired.

Subscription Money may be sent by mail at my risk and you need not "register" the letters.

Address **JOSEPH HARRIS,**
 PUBLISHER AND PROPRIETOR,
 June 1, 1860. ROCHESTER, N. Y.

THE GENESEE FARMER,
 A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE

IS PUBLISHED AT ROCHESTER, N. Y.,

By **JOSEPH HARRIS.**

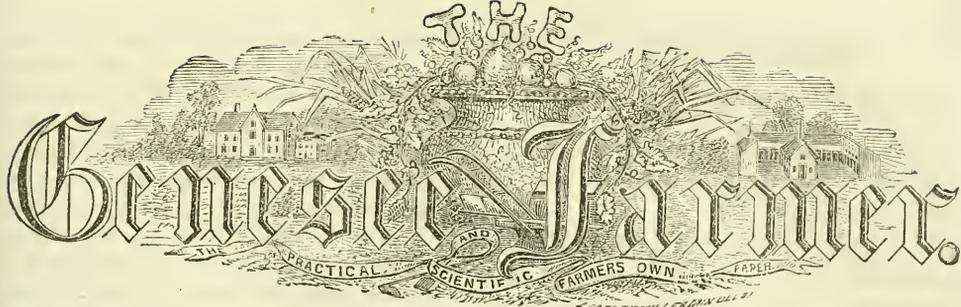
It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club reside.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants. The address of papers can be changed at any time. Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.
 Address **JOSEPH HARRIS,**
 Publisher and Proprietor, Rochester, N. Y.



THE
Genesee Farmer
PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., JULY, 1860.

No. 7.

AGRICULTURAL STATISTICS OF CANADA.

THE Bureau of Agriculture in Canada issued circulars of agricultural queries to the Presidents of the different county societies, and received seventy-two replies from Upper Canada and thirty from Lower Canada.

The wheat crop in Upper Canada last year appears to have sustained little damage from the midge or weevil. Of the seventy-two reports, forty-two state that no mischief was done by this insect to winter wheat; eighteen, that very slight injury was done; eight report serious and extensive injury—say from 10 to 25 per cent.; and three report a loss of 50 per cent.

The remedy for the midge universally given is, to sow early kinds of winter wheat very early, and the *Fife* spring wheat, either very early or not till after the 20th May. The *Soules*, *White Flint*, and *Blue Stem*, and also the *White Kentucky*, are mentioned in very many of the returns as the earliest and best winter wheat, and the *Fife* as the best spring wheat. Good draining and good cultivation are much recommended. Six returns report serious injury from frost on the 5th of June.

The county of Carleton gives the highest yield of wheat—winter wheat, 28½ bushels per acre; spring wheat, 22¾ bushels. The total average of Upper Canada is, winter wheat, 21 bushels per acre; spring wheat, 18¾ bushels. It is said that this is reliable. If so, it speaks well for the skill and intelligence of Canadian farmers. It is 16 per cent. above the average of the last twenty years.

Five years ago, there was comparatively little spring wheat sown in Canada—not one-tenth as much as winter wheat. Now it is estimated that there are twice as many acres sown with spring wheat as with winter wheat. This great change is chiefly owing to the invasion of the midge.

The total average yield of spring wheat in Lower Canada is 13 bushels per acre. The midge seems to have done considerable injury. The general

remedy suggested is, to sow very early or very late; and one writer recommends running a rope steeped in turpentine over the heads when in blossom. The *Black Sea* variety seems to be most generally sown.

The average yield of barley in Upper Canada is 27½ bushels per acre; in Lower Canada, 23 bushels. In the latter Province, more attention is paid to this crop than formerly.

Rye is grown to a considerable extent in Lower Canada, but the average yield is only 13 bushels per acre. In Upper Canada, fifty of the returns report that there is very little or none grown. The average yield is 18 bushels per acre.

In Upper Canada, only thirty-seven returns mention Indian corn, the average of which is a little over 40 bushels per acre.

Of oats, two counties in Upper Canada report an average yield of 50 bushels per acre. The total average is 34½ bushels. In Lower Canada, the average is 22½ bushels per acre.

The hay crop last year in Upper Canada was very deficient. The reported yield varies from 500 lbs. to two tons per acre. Out of the seventy-two reports, forty-eight use gypsum or plaster as a top-dressing, and eighteen use barn-yard manure occasionally.

Of turnips in Upper Canada, sixty-nine of the returns mention that this crop is grown very successfully, and that its cultivation is largely on the increase.

Flax and hemp are little grown, but in some sections of Upper Canada its cultivation is receiving some attention.

There is a great improvement reported in the Potato crop. The yield in 1858 averaged 125 bushels per acre; last year it was 176 bushels. The rot prevails only to a very limited extent. The *Irish-cup* is generally recommended as freest from the rot—though one return states it to be the worst. New land and dry situations are most relied upon as preventives.

**"THE VALUE OF MANURE DEPENDS ON THE FOOD
—NOT ON THE ANIMAL."**

UNDER the above title, the Connecticut *Homestead* copies an article on the "Value of Manure from different kinds of Food," which appeared in the *Genesee Farmer* for May, page 143, and remarks as follows:

"We find a most instructive and suggestive article on food and manure by the Editor of the *Genesee Farmer*, himself a pupil and friend of Mr. LAWES of Rothamsted. Before giving Mr. LAWES results, he makes some statements which we quote and admit as in general true; still must take exception to their universal application."

Here follows our article, the following extracts from which, the editor, himself a chemist by profession and a pupil of LIEBIG, takes exception to:

"People talk of horse, or cow, or sheep, or hog, or hen, manure, as if these manures had a fixed value, irrespective of the food consumed by these different animals.

"The animal exercises very little influence on the manure.

"If the liquid and solid excrements were all saved, they would be just as valuable when obtained from a horse as from a hen, *if the food consumed was the same.*"

This is not exactly as we wrote it—some slightly qualifying sentences being omitted; still, we admit the general fairness of the quotation.

The *Homestead* says:

"In the first few sentences quoted we think the editor takes a little too strong ground. Think—the value of manure depends not alone on the amount of phosphoric acid and nitrogen contained in it, without reference to its bulk. Cow manure is bulky, wet, and needs care in composting to preserve its value, which makes it still more bulky; besides, it contains weed seeds often, which pass with the food through the animal. So does horse manure; but sheep and hen manure do not—the digestion of these animals is more perfect. In the case of hens, their respiration is so very quick, and the digestion so perfect, that the manure must, we think, be considered of a higher value than other kinds. Neither is the bulk and perfection of digestion of food the only things not taken into the account. It is well known that the manure from growing animals, or those that are producing labor, milk, wool, or a fat, varies accordingly. This is a most important thing to be had in view. Milch cows yield a very poor manure, so do young animals; oxen at hard labor little better, but full grown animals not at hard labor, though fed on precisely the same food, yield a much richer manure. If rich food like oil-cake is fed, little besides the fatty matter in the food is retained in the system. The waste of muscle is little, and all the nitrogen appropriated but counterbalances this waste, which is chiefly found in the manure, and the bony frame of the animal being perfect, the phosphates, etc., are not withdrawn from the food on its passage through the animal, so that the manure contains almost all the substances of value originally in the food."

We admit that the *bulk* of the manure, its humidity, etc., ought to be taken into consideration in determining its value. But, "*if the food consumed was the same,*" there would be little difference in the bulk of the manure from a horse, a cow, or a sheep, except so far as it was caused by more or less water. Cow manure contains more water than horse manure; but this, so far from being an objection, is considered an advantage in a well-managed barn-yard, where the manures from the different animals are mixed together. The cold and sluggish hog and cow manure check the too rapid fermentation of the horse and sheep dung. BOUSSINGAULT, who has given much attention to this subject, and who will be regarded as good authority, says:

"The composition of horse-dung would lead us to infer that its action must be more energetic than that of cow-dung. Nevertheless, agriculturists frequently consider it as of inferior quality. This opinion is, even to a certain extent, well founded. Thus although it be acknowledged that horse-dung covered in before it has fermented, yields a very powerful manure, it is well known that in general the same substance, after its decomposition, affords a manure that is really less useful than that of the cow-house. This comes entirely from the fact that the droppings of the stable, by reason of the small quantity of moisture they contain, present greater difficulties in the way of proper treatment than those from the cow-house. Mixed with litter and thrown loosely upon the dung-hill, horse-dung heats rapidly, dries, and perishes: unless the mass be supplied with a sufficient quantity of water to keep down the fermentation, and the access of air be prevented by proper treading, there is always, without the least doubt, a considerable loss of principles, which it is of the highest importance to preserve. I can give a striking instance of this fact in the changes that happen in the conversion of horse-dung into manure in the last stage of decomposition: fresh horse-dung in the dry state contains 2.7 per cent. of azote. The same dung laid in a thick stratum and left to undergo entire decomposition, gave a humus or mould, from which, reduced to dryness, no more than one per cent. of azote was obtained. I add, that by this fermentation or decomposition, the dung had lost nine-tenths of its weight. From these numbers every one may judge how great had been the loss of azotized principles. In practice, however, little care is bestowed on the preparation of horse-dung; the fermentation is rarely, if ever, pushed to this extreme point indeed, but it is not the less true that it is constantly approached in a greater or less degree; and that the consequences, although not altogether so unfavorable as those which I have particularly signalized, are nevertheless extremely destructive. All enlightened agriculturists have, therefore, long been aware of the attention necessary to the management of horse-dung, which requires a degree of care, that may be perfectly well dispensed with when the business is to convert the dejections of horned cattle into manure. To obtain the best results in the management of

horse-dung, it appears to be absolutely necessary to give it a much larger quantity of moisture than it can ever receive from the urine of the animal; if it be not well watered it necessarily heats, dries, and loses both in weight and quality; while, by being kept properly moist, it produces a manure, which half-rotted, is of quality superior, or at all events equal, to the same weight of cow-dung."

Cow-manure, then, instead of needing more "care in composting to preserve its value," is, according to BOUSSINGAULT, more easily preserved than horse-dung. The increased bulk of the cow-dung, *caused by its greater humidity*, when mixed with other manures, is no detriment. Its increased bulk, caused by the alleged imperfect digestion, must be so small as not to materially affect its value—even granting, what we are by no means prepared to do, that cows cannot extract as much nutritious matter from food as horses, hogs or sheep. It must be borne in mind, that we are supposing that the *same kind of food is consumed*. Admitting, for the sake of argument, that sheep extract from 100 lbs. of hay one or two pounds more of carbonaceous matter than cows or horses, and that consequently the sheep-dung obtained would be one or two pounds lighter than from the cows or horses, we can not think that such a slight difference in bulk would materially affect the value of the manure. The argument of the *Homestead* is that the 100 lbs. of cow-dung contains no more fertilizing matter than the 98 lbs. of sheep-dung, and that, therefore, the 98 lbs. is more valuable than the 100 lbs. *because it is less bulky*. To this extent the *Homestead* may be right, if the digestion of the cow is less perfect than that of the sheep.

When we said that "the manure derived from a given quantity of the same food consumed by a horse, a cow, a sheep, or a hog, varies very little, if at all, in composition or real value," we took it for granted that the condition of the animals was the same in all cases. A young animal, or one giving milk, whether a horse, a cow, a sheep, or a pig, doubtless extracts more phosphate and nitrogen from the food than an adult animal, or one not giving milk. But this is foreign to the question.

The *Homestead* says "Milk cows yield a very poor manure, so do young animals; oxen at hard labor little better; but full grown animals not at hard labor, though fed on precisely the same food, yield a much richer manure."

The manure from young animals and milk cows is somewhat inferior; but why it should be so in the case of *working animals* we can not understand. Will our friend of the *Homestead* explain? If you say that the working animals will digest their food

better and abstract more of the carbonaceous matter, then the manure obtained will be less bulky, and, according to your previous argument, more valuable in consequence. Working animals may abstract more nitrogen from the food in order to sustain the wear and tear of their muscles; but, unless they increase in flesh, this would not lessen the quantity of nitrogen in the excrements, inasmuch as the muscles which are used up furnish just as much nitrogen as the new muscles abstract from the food.

DO ANIMALS CONSUME FOOD IN PROPORTION TO THEIR LIVE WEIGHT?

EDS. GENESEE FARMER:—I notice your remarks on my statement about feeding sheep. I will endeavor to make you understand what I do mean.

I mean that the same amount of grain—one lb. per day to each—of any kind that is raised in this part of the country (wheat excepted—I never feed much of it), will fat sheep weighing 140 lbs. as quickly, and make them gain more weight, than those weighing 85 to 100 lbs. The larger may eat more straw, as that I do not weigh out to them; and I can not see why Mr. LAWES, of Rothamsted, with all his chemistry and science, should know any more about feeding stock than the practical man that has read of Mr. LAWES' experiments, and tried many of them by the most scrupulous practice. True, I have not had turnips like Mr. LAWES to practice with; but I have many, many times, experimented with the different kinds of grain, oil-cake, meal, and peas, and with the different kinds of cattle and sheep, feeding them with my own hands for longer than the average life of man; and if I don't know as much about feeding sheep as Mr. LAWES of Rothamsted, I must be a greater dunce! *That is all*; but there need be no dispute about it between you and me. It can be very soon decided by any practical feeder; let it be one who does the feeding, and not by one who sends Patrick, Jimmy, or even Sawney. JOHN JOHNSTON.

Near Geneva, N. Y., May 30, 1860.

P. S.—The sheep must be about equal condition when put up. J. J.

REMARKS.—It would appear from the above, that whatever may be his opinion, Mr. JOHNSTON'S experiments do not show whether sheep do or do not consume food in proportion to their live weight. They show simply that large sheep fatten more easily than smaller ones. The same fact was brought out in Mr. LAWES' experiments, as we stated in the June number of the *Farmer*. So far Mr. JOHNSTON and Mr. LAWES agree. Mr. LAWES' experiments, however, showed also that the large sheep eat more total food (not grain simply,) than the smaller sheep. Mr. JOHNSTON did not determine this point. He says "the larger may eat more straw, as that I do not weigh out to them."

We do not know that Mr. JOHNSTON has ever stated that sheep do not consume food in proportion

to their live weight; but others assert it, and quote him as their authority, while his experiments, clearly, have no bearing on the question.

We do not wish to be hypercritical, but we do not think it has been proved that, *irrespective of the breed*, "the same amount of grain will fat sheep weighing 140 lbs. as quickly, and make them gain more weight, than those weighing 85 or 100 lbs." True, it has been proved that, in proportion to the food consumed, the large Cotswolds will fatten more rapidly than the smaller Leicesters, and still more so than the yet smaller South-Downs; but it does not follow from this that, *irrespective of the breed*, the larger sheep will fatten most rapidly for the food consumed. We do not think our experienced friend Mr. JOHNSTON wishes to be understood as making such an assertion. A long-legged, big-boned, thick-eared, slab-sided, bare-bellied sheep, however large, would not fat as readily for the food consumed as a smaller, well-bred sheep of the same breed.

The experience of breeders seems to indicate that early maturity and a tendency to fatten rapidly are obtained at the expense of size. The old-fashioned Leicester sheep was a much larger animal than that produced by long years of careful selection and judicious breeding by ROBERT BAKEWELL. MORTON'S *Cyclopaedia of Agriculture* says "there is every reason to believe that BAKEWELL'S flock was composed of the old Leicester, the then common breed of the district. These were characteristics of the long-wooled breeds of the day—large, ungainly, and coarse-boned animals, seldom ready for the butcher before they were three years old, at which age they weighed from 25 lbs. to 35 lbs. per quarter—the wool being long and coarse in the staple, and weighing about 10 lbs. per fleece. It was obvious that the large carcass of these breeds was connected with, and counterbalanced by, a slow development of fat; while the rich food consumed by two sheep was quite adequate to the maintenance of three of smaller size, whose aggregate weight in mutton and wool would still be greater."

The result of BAKEWELL'S labors was to increase the early maturity and fattening properties of these sheep; to develop the more valuable points of the animal, and to reduce the weight of bone and offal; and this was not accomplished without reducing the total size and weight of the sheep, and, what is more to be regretted, without lessening the growth of wool. Now, no one will claim that one of these old Leicester sheep, weighing 140 lbs., would fat as quickly on the same amount of food as an improved Leicester weighing from 85 to 100 lbs.

We have no doubt that what Mr. JOHNSTON

means is true; but what he *says*, when understood as a general principle, applicable to all cases and under all circumstances, without qualification, is, to say the least, destitute of satisfactory proof.

Our correspondent's remarks in regard to Mr. LAWES are uncalled for. Few men have done more for agriculture than he. None are entitled to more respectful consideration. But the question under consideration is not one which can be settled by loose observations, even if the observer is a man possessed of the judgment, sagacity and experience of our respected friend, JOHN JOHNSTON. It is a question which can be answered only by actual experiments. Mr. JOHNSTON claims to have made such experiments. But the experiments do not show how much food either the large or small sheep consumed. They may show which sheep were the most *profitable*; but that is not the question. Mr. LAWES' experiments, on the other hand, show exactly how much food was consumed, how much the sheep weighed, and how much they increased in weight. The facts were all ascertained, not by "Patrick or Jemmy," but by gentlemen every way qualified for the task, and whose special business it was to see that every thing was done with care and accuracy. Nothing was left to chance. There was no guess-work. The experiments were made for the simple purpose of ascertaining truth. The facts as ascertained are put on record. No one can doubt that they are facts. Mr. JOHNSTON should so regard them; and if he has any counter-facts, let us have them, and they shall receive due consideration. Do not say "I have fed cattle and sheep all my life, and I ought to know whether animals consume food in proportion to their live weight as well as Mr. LAWES, or else I am a great dunce." If it was a matter of opinion, the argument would be a good one; but it is a question of facts—and Mr. LAWES has ascertained the facts, and Mr. JOHNSTON, so far as appears to the contrary, has not.

EDS.

CHESTER COUNTY HOGS.—In the June number of the *Farmer*, B. H. WILDER asks for "a description of the Chester county hogs, and their peculiarities." I would say that, from the experience I have had, I like them much. They are distinguished for their early maturity, great facility for fattening, and are very quiet and docile. Some of these hogs, when well fed, attain to a weight of six or seven hundred lbs. They are well covered with bristles, and, unlike the Suffolk, can endure the heat and cold. The Chesters will probably make as much pork (and of a superior quality), on a given amount of food, as any other breed. Where the Chesters are known, they are universally esteemed.—D. CUTTS NYE, *Lexington, Mass.*

SPIRIT OF THE AGRICULTURAL PRESS.

SHEEP WASHING.—A correspondent of the *American Agriculturist* gives the following plan: A large vat made of plank, about ten feet long, four feet wide, and three and a half feet deep, is placed near a stream where there is sufficient fall. Troughs are laid to conduct the water, with their lower ends standing about two feet above the vat. Two boys, each holding a sheep soaking at one end of the vat; while two men, standing on the ground outside the vat, each hold a sheep under the stream running from the troughs. It requires but little squeezing of the wool, and much less time to wash them well than by the old method. We gave a full description of this method in the *Genesee Farmer* for May, 1859.

TRANSPORTING BEES.—A correspondent of the *N. E. Farmer* gives the following directions for transporting bees: "Spread down a sheet, and set the hive on it; then bring up the corners and tie over the top, or invert the hive, and put over the bottom a piece of muslin eighteen inches square, fastened at the corners with carpet tacks. A wagon with elliptic springs is best for conveying them. In all cases, the common box hive should be bottom up, to avoid breaking combs. When moved late in the season, they should be set several feet apart."

THE EYES OF HORSES AND CATTLE.—In the *New England Farmer*, a correspondent gives the following remedy, when horses or cattle injure their eyes so as to bring on a white substance or film. He says: Take fresh butter, newly churned; melt about a tablespoonful, and turn it into the ear opposite the eye injured, being careful to hold the ear tight together, so that they shall not, by a violent shake of the head, throw it out of the ear. This remedy, he says, may be safely applied, if you do not use them when the film is coming off.

TO KILL VERMIN ON CATTLE OR FOWLS.—A writer in the *New England Farmer* says: "Take common lamp oil and rub it in well back of the ears and all down the back. Do this once a week, and the vermin will disappear. It is safe. Tobacco will kill lice, but should be used cautiously. Rub lamp oil on the back of the head, under the wings, and over the posteriors of any fowl once a month, and it will clear out all lice."

TOBACCO STALKS.—One of our exchanges says: "We made last year a better crop of potatoes, manured exclusively with tobacco stalks, than we have ever made with a free use of guano. The stalks from four acres will manure one acre abundantly."

A GOOD CREED ON PLOWING.—A correspondent of the *Country Gentleman*, says: "I believe, 1st, that there are some soils which should not be plowed deep, such as the light sandy, the gravelly, the peaty, etc., when quite porous and friable, and resting on a subsoil of the same character: 2d, that all clayey and loamy soils may be deepened with advantage, *provided* it be done at the rate of an inch or so in a year, and with the addition of twelve to twenty loads of good manure, and *provided* there is no stagnant water near the surface, or a necessity for draining; and 3d, that the safest and best way of proceeding, is to deepen only a little at a time, as a guide for future operations."

CHEAP APPARATUS FOR GIVING SALT TO SHEEP. "R. B." writes to the *Boston Cultivator*: "Last year I carried a large snagar hogshead, for which I paid 38 cents, into the field and laid it upon the ground, making it fast—one head having previously been taken out. I was careful to smooth off all protruding nails or rough substances liable to pull the wool. Then upon the inside of the other head I nailed a 7 by 9 box to contain the salt, and the work was completed—the whole costing, in money and labor, about 50 cents, and so far as necessity is concerned, it answers a very good purpose."

DOGS AND BELL SHEEP.—An Indiana sheep farmer, in the *Stock Journal*, says that a number of sheep wearing bells, in any flock, will keep away dogs; he would allow ten bells to every hundred or hundred and fifty. When sheep are alarmed, they run together in a compact body, in which act all the bells are rung at once; which frightens the dog, or makes him think some one is on his track—so he leaves without taking mutton.

BLACK HAWKS THE BEST ROADSTERS.—The *Wisconsin Farmer* says: At the Agricultural Show at St. Louis, Mo., last fall, \$1,000 was offered as a premium for the best roadster stallion. The judges, from the great number offered, selected six which were deemed the best, and then made a critical examination of them to find the best one. Of these six, five were the sons of Black Hawk, and the sixth a grandson.

PROFITS OF FRUIT.—In the *N. E. Farmer*, mention is made of the Messrs. CLAPP, of Dorchester, Mass., who, Col. STONE says, by systematic culture, raised each year, on five acres of land planted with apple trees, \$600 worth of currants as an under crop; while at the same time, they had a large crop of the best apples. Their profits have been from \$2,500 to \$3,500 per annum.

PLANTING TREES.—A correspondent of the *American Agriculturist* gives the following points to be kept in view in planting out trees of all kinds—especially fruit trees:

1st. A portion of the roots should be so near the surface, and in so porous a soil, that they can enjoy air and the sun's warmth.

2d. Part of the roots must go deep enough to secure abundant moisture or sap at all times—particularly when the surface soil is temporarily parched by drought.

3d. The subsoil, so far down as the roots penetrate, should be of good character; that is, it should have been so exposed to the action of air as to destroy the soluble proto-salts of iron, magnesia, etc.; and also organic acids—otherwise these substances will be absorbed and act as poison.

PROFITS OF SHEEP RAISING.—A correspondent of the *North-Western Farmer* makes the following statement, showing how wool-raising pays those who manage it as it should be: "Last season I clipped 250 sheep; the wool sold for \$552. I have sold within the year 74 sheep, which is equal to the number of lambs raised, for \$814—making \$1,366. My sheep are of the Spanish Merino breed, and mostly ewes." He considers sheep-raising the most profitable business a farmer can engage in.

SURFACE MANURING.—A correspondent of the *Country Gentleman* says: A farm in this neighborhood, that had been greatly exhausted—the meadows yielding but little, and that of an inferior quality—has been restored to fertility by its present owner by means of surface manuring the meadows, and thorough scarifying each spring. They now yield a heavy crop of the best kind of hay.

GLASS PANS FOR MILK.—An English farmer says, when he first took to dairying on a large scale, he laid out \$100 in glass pans, because they looked so well in a dairy. On further acquaintance with them, he has come to the conclusion that they are the cheapest things (even at one dollar each,) that a farmer can use—they are washed and wiped and kept clean with so little trouble.

IMPROVING SWINE.—A writer in the *Prairie Farmer* says the farmers of Iowa are wide awake on the hog question. They are improving their stock by a cross with the Suffolks and Chester Whites.

PROFITS OF RHUBARB.—A writer in the *Working Farmer* says from three-fourths of an acre he sold \$500 worth of rhubarb, or pie-plant.

THICK OR THIN SEEDING OF OATS.—A correspondent of the *Country Gentleman* relates an instance where 40 bushels of oats per acre were obtained from one bushel of seed; and only 33 bushels per acre from $3\frac{1}{2}$ bushels of seed. The thick seeding, however, produced much the most straw, and he thinks when oats are sown for fodder they should be sown very thick.

ASHES.—A gentleman writing to the *Ohio Farmer* says: Some farmers have a very foolish habit of selling their ashes for a dime or a shilling per bushel, when they are worth more than twice that amount to spread on their land. It don't pay, he says, to sell ashes at this price, and then buy lime to manure our farms with.

BLOODY MURRAIN.—An experienced correspondent of the *Ohio Cultivator* says where cattle have access at all times to running water, they will not get the murrain. If any cattle are affected with murrain, remove them from all other stock, and let them be as quiet as possible. Rest and quiet will cure them, if anything will.

BUG-EATEN PEAS.—A correspondent of the *Homestead* says he selected thirty fair looking peas, not badly eaten. Two only of the thirty ever made their appearance above ground, and they were so slender as never to amount to anything; and he is satisfied that those which are eaten to a shell will not vegetate.

BEST LAYERS.—A correspondent of the *English Poultry Chronicle*, who seems to have had considerable experience, states that the "best layers all the year round, for size and quality of egg," are a cross between the game cock and the Golden Spangled Hamburg hen.

SHORT-HORNS IN CALIFORNIA.—The *California Farmer* states that the Durham bull, "Earl the Fourth," sent to California by J. D. PATERSON, of New York, has been sold to Capt. J. B. FRISBIE, of Vallejo, to be taken to Solano County. The price paid was \$4,000.

TREE PLANTING CLUBS.—One of our exchanges, we do not know which, recommends young men to form "tree planting clubs." The idea is a good one. Let the young men in a village or town set apart a day in spring or autumn for the purpose of setting out shade and ornamental trees.

The *Maine Farmer* chronicles the birth of a calf weighing 120 lbs. The same paper also alludes to a bull calf, most native, weighing when eleven months old, 890 lbs., and when a year old, 990 lbs.

ENGLISH PLOWS AND PLOWING.

JUDGE FRENCH, of Exeter, N. H., who has, within a year or two past, spent considerable time in Europe, contributes a very readable article on "English Plows and Plowing" to the last volume of the *Patent Office Report*. We make a few extracts:

The plows made by RANSOME & SIMES, which I saw on exhibition at the shows of the Royal Agricultural Society, perhaps rank as high, at present, as any plow in England. I was informed, at the warehouses of the manufacturers, at Ipswich, that their plow in common use as a seed plow, for two horses, weighs two hundred and eighty lbs., and its length twelve feet. It turns a furrow of eight or nine inches in width, and five or six in depth, which may be increased to one of ten by seven inches.

Actual experiment, at the warehouses in Boston, shows the average weight of American plows designed for the same work, with wheel and cutter, to be about two hundred lbs., and their average length about seven and a half feet.

The English implement is entirely of iron, of fine workmanship and finish, with two wheels, and is much less simple in its structure than the American; yet the American plow seems to be more firm and strong than the other. Indeed, the extreme length of the handles and of the beam of the English plow, notwithstanding they are of iron, gives to a hand accustomed to the American implement a feeling of insecurity, as if the material were elastic, and would not be stiff enough to control the work were a stump or fast rock to be encountered in the furrow. This apprehension, however, is idle in most English fields, which for a thousand years, perhaps, have felt the pressure of the plowshare.

But the difference between English and American plowing is fully as striking as that between the plows. The worst-plowed field which I saw in a summer's ramble through old England might be said, literally, to appearance, to be done better than the best-plowed field that can be found in a New England farm. There seems to be no such thing in England as a crooked or irregular furrow, but, however extensive the field, the work appears uniformly as straight as a line could be laid down by a civil engineer with his instruments; and whether the operation be really more thoroughly performed than with us or not, it has at least the merit of being accomplished precisely as the plowman desires.

Our first impression upon these observations would naturally be, that notwithstanding the English plow is more clumsy and expensive than the American, yet the former must have advantages of structure, which, for use in old and thoroughly-tilled fields at least, more than compensate for these objections. Yet this, however natural, would be a hasty conclusion.

Within twenty miles of Ipswich, where RANSOME'S highly-finished plows are manufactured, in a week which was spent on a farm and among intelligent farmers, in the county of Suffolk, an entirely different plow was generally in use—an implement so ungainly, so large and ill-fashioned, that it seems as if it must have been disinterred with the stone coffins of the Norman knights, which

occasionally turn up in that neighborhood, or have been found in the antediluvian deposits of coprolites, for which Suffolk county is famous.

The plow referred to is that which is usually known in English books as the Norfolk plow, the peculiarities of which are, that it has but one handle, and that its beam, running upward at an angle of about forty-five degrees from the level surface of the ground, rests upon a frame-work supported by an axle, upon which are two wheels of about the size of the small wheels of a Yankee wagon.

And thus we have the mystery of English superiority in plowing solved, by the superior skill of English plowmen, without necessarily admitting the superiority of English plows.

The question, however, between English and American plows of modern construction is still open: Does the weight, or the length, or does any other peculiarity of the English plow, upon the whole, contribute to the utility of the implement? It may be said that differences in the soil, or the condition of the surface, render any such inquiry fruitless to us, because a plow that may be suitable and best for old fields in England, may be quite unfit for the newly-cleared lands of the New World. Such, manifestly, is the fact, but much of this New World has already been converted into broad, clear fields, and much of our best alluvial and prairie land becomes, by a few years culture, as free from obstruction as the oldest fields of Europe.

It is a fact well known to practical farmers, that the draft of the different plows, turning the same width and depth of furrow, in the same field, and performing the work in substantially the same manner, varies so much as to be plainly practicable in its effect upon the team. The use of the dynamometer, by which the power exerted upon the plow, or, in a word, the draft can be actually measured, has confirmed and made definite this point, which before rested upon conjecture, or mere estimate. It has thus been ascertained, by a trial of ten different plows, each of a different make from the others, that the difference in draft, in performing precisely the same work, amounted to forty-five per cent. The experiment was made in turning a furrow with each plow, nine inches in width by five in depth, in five different kinds of soil, and carefully noting the results as shown by the dynamometer. Taking the average of the five trials, it appeared that, while the plow of lightest draft required a power of three hundred and one lbs. to work it, the plow of the heaviest draft required a power of four hundred and forty-one lbs. to perform precisely the same work, and the other eight required the greatest possible variety of power between these extremes.

At a trial reported in the transactions of the New York State Agricultural Society for 1843, p. 61, it was found that the average of resistance, or the draft of twenty-four different plows, tested by the dynamometer, ranged from two hundred and ninety-eight to four hundred and eighty-three lbs., showing that more than sixty per cent more power was required to move one plow than the other, in the work of turning a furrow twelve inches wide by six inches deep.

In another series of experiments, in the transactions of the same Society for 1849, p. 559, in a trial

of twelve different plows, we find the draft to vary all along from two hundred and ninety lbs. to four hundred and ninety-three lbs., being a difference of seventy per cent. in performing the same work of turning a furrow of twelve by six inches. * *

The writer is not aware that any very reliable experiments have ever been instituted to test, by the dynamometer, the comparative draft of English and American plows. * * * *

The heavier the plow the greater the force necessary to move it along the surface. In a series of experiments published by Mr. PUSEY in the English *Agricultural Society Journal*, it appears that the average draft of nine different plows, in an empty furrow, was in proportion to the weight as three to four; that is to say, that a plow of three hundred lbs. weight required a force, as shown by the dynamometer, of two hundred and twenty-five lbs. to move it when not at work. By the same experiments, it appears that the average draft of the same plows, working and turning a furrow nine inches by five, was a fraction less than double their draft in the empty furrow. Later experiments confirm this result; and it may be taken as demonstrated that, in the use of the heavy English plow, about one-half of the ordinary force of the team is expended in moving the implement when at ordinary light work! * * * *

Taking, then, the draft of the plow in the empty furrow, which may be called the surface draft, to be three-fourths of the weight of the implement, and the weight of English plows for common work to be that given me at the factory of RANSOME & SIMES, two hundred and eighty lbs., and that of the American plows to be one hundred lbs., we have the difference in the draft, one hundred and thirty-five lbs., or three-fourths of the difference in weight.

What do our Canadian friends, who use the English and American plows, say to these conclusions? The question is an important one. There may be advantages in the long handles and great weight which, on account of the increased steadiness of the work, counterbalance the extra power required to draw the extra weight of the plow. Thus, a plow with wheels weighs heavier than one without, yet it has been shown by the dynamometer that, owing probably to its greater steadiness, it draws easier than the same plow without wheels.

LAND FOR WHEAT CAN BE MADE TOO FINE.—In the *Genesee Farmer* for August, 1859, page 234, in an article on the Cultivation of Wheat, we remarked, "Wheat likes a firm, compact soil; and if left somewhat rough and cloddy, it is none the worse." Several of our correspondents differed with us on this point. Hon. A. B. DICKINSON, in an article in the *Rural New Yorker*, says, "All experienced wheat-growers will agree that wheat does much better when the soil is left a little coarse, or a portion of it in small chips, than when it is all pulverized and made fine." The *Boston Cultivator* copies the remark and adds, "There can be no doubt on this fact."

NOTES FROM CANADA WEST.

EDS. GENESEE FARMER:—To-day being so wet and stormy as to confine me to the house, I thought it would be a good chance to have a talk with you on agricultural matters generally. In your notes for the month in the May number of the *Farmer*, you say "spring wheat will succeed on a clover sod plowed up fresh." There is probably no section of Canada where spring wheat has been more extensively and successfully grown of late years than in this township. At first it was thought that a clover sod would answer for this crop; but repeated trials have proved that almost the worst method that can be adopted is to sow it on clover sod. The wheat grows finely at first and apparently promises well, but dies off in patches as the dry weather comes on, and at harvest is found to yield a light crop of straw and but little grain. This is probably owing to the great amount of carbonaceous matter derived from the decomposition of the clover, and perhaps also to the difficulty of getting a compost and bed on clover sod.

It is now generally conceded that spring wheat succeeds best after root crops, or even corn or barley, provided the stubble is plowed under immediately after harvest, and the soil left exposed to ameliorating effects of the frosts of winter. (a.)

You also say that Fife wheat is regarded as the most popular sort here. This was the case some years ago, but it is not so now. The flour from Fife wheat is of so dark a color and the wheat so difficult to grind, that the millers will scarcely purchase it at any price, and its growth is mostly confined to the back settlements, where the farmers have to consume what little wheat they can grow for home use.

The spring wheat most in demand is a new kind known as the Golden Drop, a few grains of which I send you. It is now pretty extensively grown, and is admitted to be the best spring wheat yet seen in Canada. It grinds as readily as fall wheat, and the bread made from its flour is but little if any darker than that made from Genesee flour. Not being so hard and flinty as the Fife, it may perhaps be more liable to suffer from the midge; but it is so productive that where even two-thirds of the crop has "gone to midge," the balance amply remunerates the farmer for his trouble. My father has raised this kind for the last two years and finds it as profitable as fall wheat. He sold his entire crop this year at \$1.25 per bushel at the barn. (b.)

Farmers are perhaps not generally aware that wherever lime is sown upon the land it has the effect of producing a heavy growth of sorrel in a year or two afterward. The same is also the case to some extent where plaster is used largely. This plant contains a large proportion of oxalate of lime—hence its sour taste. The most effectual way to get rid of it is to sow unleached ashes, at the rate of two or three bushels per acre, on the land, with the first grass or clover grown after the application of the lime; and when sowing plaster, to mix a small proportion of unleached ashes with it.

You seem to deny the utility of soaking seeds in mineral solutions. (c.) Now it is undoubtedly true that the quantity of mineral matter that can be absorbed by the seed is but small; yet little as it is, it is sufficient to cause the plant to be more quickly developed during the first stages of its

growth, from coming in immediate contact with plant food that it would otherwise either not find in the soil, or have to send out roots to some distance in order to collect as much as would be adhering to, or absorbed by, the seed itself. In fact, this mineral food, perhaps, but acts as a stimulant to the young plant, and is not expected to produce any further difference in its productiveness than would be produced by the earlier maturing of the plant, and the giving it a better chance to get the start of the weeds.

There is no doubt Peruvian guano is a powerful stimulant to potatoes; but, unfortunately, its application is almost certain to result in the entire loss of the heavy crop thus grown, from the potato rot—which always seems to affect the plant where any ammoniacal manures are used. (d.)

Nobody complains of the pea-bug now-a-days—in this section, at least. The kind chiefly grown here is the *Golden Drop Pea*, which has never yet been known to have bugs in it.

Root crops will be extensively grown this year in Canada. The turnip crop last year was so productive that turnips were unsaleable, and but little hay was given to either cattle or sheep last winter. Many of our farmers are sowing an acre or two each of carrots this year, hoping to find them more saleable than turnips, which are not liked in or near towns for horses or milch cows. A great many would like to grow the Kohl-Rabi this year, but can not get the seed. It is to be hoped that some will be imported next winter in time for early sowing.

Father says the statements so frequently put forth by different agricultural chemists on the value of different animal foods as regards the manure produced from them, are greatly at variance with the principles of animal physiology; and that it would be well for chemists to know more about physiology. Had Mr. LAWES actually proved, by experiment, on wheat for instance, that each of the manures so made as given in his table, gave an increase of crop equal to the estimated value he puts upon it, it would have been a point of importance; but it does not appear that he did so. (e.) The value of a manure produced from any kind of food depends on the amount of animal secretions it absorbs while passing through the animal frame; and this again greatly depends on the power required to enable the animal to digest and decompose them. A fat animal gives off a larger amount of secretions than a lean one. If a fat animal is fed on straw, the straw will absorb a large amount of secretions, and the animal soon becomes poor and the manure diminishes in value; but the addition of three bushels of turnips per day to the straw and given to the animal will keep up its condition by giving the requisite supply of nitrogen and carbon, then the manure made will still continue to be rich. Again, an ox will consume 200 lbs. or more of turnips per day, and produce nearly that quantity of manure; while if fed on oil-cake, it will, perhaps, not consume more than 20 or 30 lbs. per day, and produce but a small quantity of manure. Consequently, the value of certain foods to produce manure does not depend on the nitrogen they contain; as, whether that is more or less, it must be all taken up by the animal frame, and enters into the blood and structures before it is given off in the manure. The easier the

food is to digest, the more of it the animal can pass through its frame, and the manure it can make. I will, perhaps, have more to say on this subject another time. J. MACKELCAN, JR.

Hamilton, C. W.

REMARKS.—(a.) What we said was that, "unlike barley, spring wheat will succeed on a clover sod plowed up fresh." This we know to be the case. We said, however, that it would do better on land that had been summer-fallowed, or at least plowed the previous fall and cultivated in the spring. Our correspondent misunderstood our remarks if he supposed that we preferred a clover-sod. We only wished to say that while barley would not succeed on a clover sod, plowed up fresh, spring wheat would—intimating at the same time that it succeeded better on land plowed the previous fall.

(b.) The so-called *Golden Drop* is a comparatively new variety of spring wheat, and, however much it may be esteemed by the few who are acquainted with it, it has not been sufficiently introduced to warrant us in saying it is a "popular" variety in Canada. On the other hand, as we stated, the *Fife* is a well known and popular kind.

(c.) We did not. We only said that the small quantity of such matter which a seed could absorb could have little influence on the future growth of the plant. We think so still.

(d.) We have not found it so in our experiments. We have repeatedly used Peruvian guano, and also sulphate of ammonia, with great advantage to the crop, and never could perceive that the potatoes so manured were any more diseased than those having no manure of any kind.

(e.) He did this. He has ascertained, from twenty years' actual experimenting on wheat, what is the manurial value of certain ingredients that enter into the composition of plants. He has also ascertained what proportion of the food is retained in the bodies of animals, and what is voided in the excrements. Knowing the composition of the food, then, he is able to tell what will be the composition of the manure made from it; and consequently its manurial value. Our correspondent will find an article on another page, in which this subject is more fully, though briefly, discussed. It is too plain to need much discussion. Allowing that an ox eating 200 lbs. of turnips per day produces a large quantity of manure, does our correspondent attach any great value to the 175 or 180 lbs. of water which the turnips contain, and which goes to increase the weight of the manure? The manure made from 30 lbs. of oil-cake would certainly be worth more than that from 200 lbs. of turnips. There can be no doubt on this point. EDS.

IS THE KEEPING OF POULTRY PROFITABLE?

This question has been asked time and again. We answer, Yes. It has been shown in our agricultural papers, that on a small scale, from ten to a hundred hens may be made to pay a profit from thirty five cents to one dollar per head for each hen. But poultry-keeping, in one point of view, is not unlike some other occupations; therefore, to make it pay, it is of the first importance that a person should start correctly. When a man engages in a mercantile or manufacturing business, he makes, or should make, himself master in a measure of his business. So with poultry-keeping. The first step, then, toward rendering it a paying business, is a knowledge of the management, and a good selection of fowls. A proper mode of treatment is absolutely necessary to success; and it will not be found advantageous to engage in the business extensively under any other method than that we have mentioned.

Looking at the chicken merely as a machine for the conversion of cheap materials into a costly article of animal food, the point to be considered by those who have this object in view, and would be guided by motives of economy in their selection, is not which machine will consume *least* of the raw material, but which will manufacture the article *most* expeditiously, and give the quickest return of serviceable food; and here we think it will not be questioned that the Brahma fowls possess this property in an eminent degree.

Mr. Post, a neighbor, keeps a small flock of Brahma fowls, and has been pre-eminently successful in rearing them; but then he understands the business, and attends to it morning, noon and night—showing large returns, and amply remunerating the owner for the labor and all expenses incurred in keeping them. The statements which follow are doubtless correct and truthful representations, and are accounted for by the fact that all the feed was purchased, and that particular attention was given them. They were well supplied with animal as well as other food, in sufficient quantity, and were clean and free from vermin. By his care and management, he made them pay a clear profit, according to his statement, of over two dollars per hen. The time spent in the care of them was more of recreation than labor.

Here is his statement: "I commenced with 30 hens, which produced within the year, commencing on Christmas day, 1858, and ending on the 24th of December, 1859, 5,223 eggs. Set 21 hens and raised 210 chickens, which were disposed of as poultry at 50 cents each, reserving 20 pullets for breeding stock. Sold 18 barrels of manure for \$18. Wintered 50 hens and 3 cocks, which comprises my present stock. Paid for grain and other food, \$95."

RECAPITULATION.

Sold Eggs, averaging 15 cents per dozen.....	\$90 00
" Chickens as poultry.....	62 50
" 18 barrels Manure.....	18 00
	\$170 50
Paid for Feed.....	95 00
Net profit.....	\$75 50

No account has been set down for the 20 pullets added to the breeding stock, which, valued at one dollar each, would swell the amount to \$95—a pretty fair profit for an investment of \$30 in fowls.

Mr. Post thinks it is no more expense to keep

the large quiet Brahma fowls than the common hens, while they are twice or three times as large, and better winter layers, better mothers, more docile, very careful of their young, and their flesh (we differ with him on this point,) fine and good flavored. He considers them in every respect better and more profitable than any other breed. The early hatched pullets commenced laying in September and October, and continued through the winter, furnishing eggs at that season when fresh eggs are scarce and command the highest price.

These fowls were confined to a small yard in winter, with an occasional run on the street in fair weather; and when seen at a distance reminds me of a small flock of sheep—being large and of a light color.

By the foregoing, it will be seen how to make the rearing of poultry profitable; and we do not know how to do it in a more satisfactory manner than by recording the experience of others. A very important step, however, toward making poultry-keeping profitable, it will be noticed, is to provide comfortable quarters for them in cold and stormy weather. Their house should be proof against frost.

We have omitted to mention that Mr. Post fed his fowls daily a small allowance of clover hay in winter, of which they seemed very fond.

Po'keepsie, May, 1860.

C. N. BEMENT

HOW TO GET RID OF CHICKEN-LICE, AND TO KEEP HENS FREE FROM THEM.

EDS. GENESEE FARMER:—Two years ago my chickens were infested with vermin, and my hen-house (which is also my wood and coal-house,) so overrun with the lice that no one could go into it without being covered with them. They were a great pest. To get rid of them I sifted air-slaked lime over the roosts, floor, wood, coal, and everything in the house, but to no purpose.

Just then, I saw the statement of a woman in one of my agricultural periodicals, saying that she did not know that sassafras roosts would prevent chickens from having lice, but she did know that when she had such roosts her chickens were never troubled with vermin.

Upon this hint I acted. I got some sassafras poles for roosts, and scattered the bark of sassafras roots among the nests. The result was that the lice soon disappeared.

My neighbor S. was in the same predicament with his hens and hen-house three weeks ago—the nest of one sitting-hen being so full of lice that she deserted her eggs. I informed him how I had got rid of them, and he immediately procured sassafras poles for roosts, and scattered sassafras bark about the hen-house and in the nests, with the same result that followed my experiment. His hens are now free from lice.

To try the effect of sassafras upon the lice, he dropped some of them upon pieces of the bark; the consequence was, that almost instantly upon touching it they died. He also dropped pieces of the bark among the deserted eggs, which were covered with lice, and noticed that when a piece fell among them, there was an immediate scampering to get away from it. From these experiments, I infer that sassafras is fatal to chicken-lice.

Washington City.

N. SARGENT.

WILL IT PAY TO MAKE PORK ?

EDS. GENESEE FARMER:—Since the wheat crop has become so blighted and uncertain in Western New York, a change of farming has of necessity taken place. All kinds of stock have increased, and fields of coarser grains have multiplied in proportion; so that corn has become the leading crop—which, if well cultivated and judiciously fed (not sold,) on the farms that produce it, the soil will not deteriorate, nor debts increase, as many have conjectured.

The corn crop, where it can be successfully grown, is the farmer's regulator and balance-wheel. It will make less debts and more money in the pocket; less bankruptcy and more rich farms; less lousy cattle and more good beef; less cords of sheep under the fence and more good mutton in the market; less pulled wool and more to shear; less poor pork and more that will pay, than any other crop—wheat not excepted.

Then, with the conclusion to feed our grain rather than to sell it—what shall we feed it to, cattle, sheep, or hogs?

Pork-growing is becoming an extensive business in this section. It is one of the greatest channels for turning our surplus slops and coarser grains into money.

Then the question arises—and it is of no secondary importance—will it pay to make pork?

From the amount raised, it would seem that the question was practically answered in the affirmative; yet a large class complain that it is not a paying business—at any rate, more than what will eat the house slops, rotten apples, small potatoes, soft corn, and glean the harvest fields, but not to feed anything saleable.

Men differ on this as much as their pork differs when brought to market—the poorer the pork the more the owner complains of his profits, or rather his losses; and the better the pork, the more satisfied the owner is, generally.

There can be no profit in raising a poor breed of hogs, that have no fattening qualities; nor even a good quality, with no conveniences nor proper care. A good hog can not be fatted, to any profit, in mud or filth, nor when he suffers from cold. It is no boy's business to understand the wants of hogs—to change their feed, and keep them healthy and growing.

The comforts of a hog should be consulted as much as any other animal, in order to receive the most profit from the least outlay. They should have a warm, dry nest, and clean pen. A hog that will not keep clean when well cared for is not worth fattening. The best fattening hogs keep the cleanest. They are remarkably neat—more so than most animals in their pen.

There is no way to test the profit or loss of making pork but by actual experiment—counting the whole outlay compared with the income; or by counting the cost for any given time, and the income.

I have fatted three litters of pigs, 25 in number, dressing 7,772 lbs.; averaging 311 lbs. each, at 9 months and 7 days old. They were from a sow—Leicestershire and Byfield crossed—and a full-blooded Suffolk boar, being very perfect in form, quiet, clean and hearty.

I dressed a litter of eight, February, 1859, averaging 252 lbs. at 7 months and 7 days old; sold for

\$7.75 per hundred. Dressed two litters, 17 in all, last February; 8 were 7 months and 11 days old, and 9 one year and 21 days old. The heaviest weighed 490 lbs., 474, 465, 454, 435, 413, etc. The three litters sold for \$615, with the lard—280 lbs. The 9 gained 40 lbs. each in September, 47 in October, 53 in November—on soft corn and apples, mostly. Estimating the 17 at 5 cents a lb., live weight, December 1st, which was the highest market price, I made \$75 above the cost of feed till dressed—February 21st—and the manure. They were fed on meal, one-third barley and two-thirds corn, scalded. They had boiled potatoes for dinner. The profit put on the corn fed—140 bushels—would bring it to \$1.25 per bushel, calling other things fed at full value. The large hogs lost 14 per cent. in dressing. They had 9 lbs. of blood each.

My profits were as much if not more before December 1st than after, on the 17.

J. W. BROWN, a neighbor of mine, who has had considerable experience in making pork, considers his grain worth from 20 to 25 per cent. more put into pork than to be sold, when the pork bears a fair price in proportion to grain.

He has just made an experiment in fattening pigs. He had a litter of ten pigs—a cross of Suffolk and Byfield—which dressed 290 lbs. each at 10 months old, and sold for \$7.50 per hundred. He kept accurate account of all they ate from the start, and their first cost. He fed peas, ground with other grain, about half and half. The pea-meal cost 75 cents per 60 lbs., and other grain in proportion.

He made \$50 and the manure above all cost, for the pleasure of feeding ten beautiful, white, clean shoats ten months.

These figures are not made thinking these pigs are better than many others, but to show that pork-raising can be made profitable, even on grain; and more so where there is a dairy connected with the corn-field.

Will it pay better to grow and fatten beef or sheep, or shall we sell our grain? These are questions of vital importance to our corn-growing farmers, and should be practically answered—not guessed at.

B. C. SIMONDS.

Geneese Co., N. Y.

A PROFITABLE DAIRY.

EDS. GENESEE FARMER:—I send you the statement of a small dairy, that took the first premium in the class of Small Dairies, at the County Society's Annual Meeting—EDWARD HOYT'S dairy.

This dairy consists of six native cows, of the following ages: two 7 years old, one 6, one 5, and two 3 years old—calved from the 10th to the 26th of March, inclusive.

Amount of Butter made.....	1,230 lbs.	
“ “ sold.....	1,085 “	\$230 61
Butter used in family.....	145 “	30 45
Pork made from milk.....		30 50
Calves and Cols, raised by hand.....		13 50
One Veal.....		5 50
Three Calf-skins.....		2 40
Milk used in the family.....		10 50
		<hr/> \$328 46
Deduct expenses, freight, corn, etc.....		20 26

Net income from all sources.....\$308 20

After deducting one-quarter each for two 2-year old heifers, the net profit per cow—5½ cows—is \$56.04.

A SUBSCRIBER.

Wilton, Delaware Co., N. Y.

STOCK AT THE FAIR OF THE ROYAL AGRICULTURAL SOCIETY.

(Continued from page 153.)

THE Lincoln is the largest breed of sheep known. In the Report of the Chester meeting the writer said: "I have known 14 months' old lamb-hogs slaughtered at Lincoln April Fair, 30 together, averaging 35 lbs. per quarter, and have known 100 together clip 14 lbs. each of washed wool."

THE COTSWOLDS.—"The general characteristics of the best Cotswolds are—their bold and commanding appearance; their finely-arched neck, well run into the shoulders, giving them an ease of carriage, when walking, which is peculiarly their own. They have broad, straight backs, with arched ribs and length of quarter, carrying an enormous weight of carcase upon clean yet open legs. As a class, they possess good legs of mutton. Their shoulders are rather open, but in line with the back, thus giving them a good appearance in the sheep-pen; the chest is broad and deep. There is a slight difference of opinion as to the exact sort of wool they should produce. A fashion of late has sprung up in favor of the open curly coat, while the older breeders adhere to the thick-set flaky coat. The latter class of wool affords the best protection against the vicissitudes of storms upon the open hill lands these sheep have to occupy. Be this as it may, they are fully agreed as to the animal carrying a 'fore-top' on his forehead, and of no small dimensions, as witnessed at some of the Society's meetings. These sheep have become popular from the fact of their hardiness being combined with flesh and wool producing properties. They are sought after for exportation to the colonies, and for crossing the dark-faced short-wools at home. The Oxfordshire down was originated by a cross between the Cotswold ram and Hampshire down ewe."

PIGS.—"The hog in British farming is in general viewed as a subordinate species of live stock, and valuable chiefly as consuming what would otherwise be lost. But there are farmers who keep large herds to advantage. To the miller, brewer, distiller and dairymen, they are an object of some importance and return. For the offal which they consume, they produce a greater weight of meat than could be attained from cattle. The prolific nature of this animal, however, rendering it easy to increase the supply above the demand, the price of pork varies more than that of any other sort of meat. Our native hog has been remodeled by the introduction of the small Chinese and Neapolitan pigs; the Chinese white pig giving the start to the small white races, and the Neapolitan to the small black breeds. Berkshire has long been famous for its breeds of the middle-sized black and white pigs; Essex for its black pigs; Suffolk for its white pigs; and the north of England for its large white bacon hogs: hence, it has been the object of the Society to encourage two descriptions of pigs, the one (small breed) more particularly for the production of *pork*, the other (large breed) for that of *bacon*. But, with such an undefined line between them, it is truly difficult to decide where the size of the small breed ends and that of the large breed begins. In thus classing the pigs many a useful animal is placed in the intermediate space. Take, for

instance, the Berkshire pig, about the most serviceable and useful swine we have—a pig of ancient origin, and brought into notice by the Society's meetings. Thus, while the dairyman prides himself on his symmetrical blacks or whites for porkers, and the north countryman extols his large hogs for bacon, the Berkshire pig may be truly designated the 'general purpose pig.' Being very hardy, they are well adapted for the strawyard; they are also good graziers during the summer months, and possess more lean meat than the smaller breeds."

The preceding difficulty of classification has been subsequently entertained by the Council, and resulted in a modification of these classes, whereby each class or breed will contest against his fellow breed or similar description of pig. The four classes for the year 1860 run thus:—1. Large breeds; 2. Small white; 3. Small black; 4. Pigs of any color not eligible for the other classes.

THE SMALL BREEDS.—"These, as usual, were 'the pets' of the show; there they lay, like a number of balls, perfect models of fat, but of their lean meat we must say but little; scarcely a pig among them could walk to his trough. Among the boars, we had a choice white specimen from the Prince Consort's stock—an animal well worthy of his first prize distinction."

CATTLE BEST ADAPTED FOR DAIRY PURPOSES.—"A local prize has for its object local good, hence the condition 'best adapted for dairy purposes.' This distinction is well meant, but it proved to be a 'distinction without a difference.' In these classes were animals of every breed and pedigree, from the best Short-horns, Herefords, Ayrshires, etc., down to the humble yet respectable real dairy cow. There were collectively 77 animals entered in the four classes, viz: 11 bulls, 17 pairs of cows, 8 pairs of heifers in-milk or in-calf, and 8 pairs of yearling heifers. The bulls consisted of 10 Short-horns and one Hereford. Mr. AMBLER, of Watkinson Hall, near Halifax, exhibited a very beautiful 15 months' old young bull, 'Royal Turk,' by 'Heart of Oak' (14,683), in this class, and easily carried away the prize. This animal was decidedly one of the best Short-horns in the yard—a remark which is substantially supported by the fact of his having been sold in the yard to Mr. LANGSTON for 400*l*. He is a beautiful light roan, full of flesh, with first-rate form and quality. This bull will be seen again at future exhibitions, when we doubt not but that he will prove himself a distinguished competitor."

"*Milking Cows*.—This was an excellent lot of animals, but it more properly represented the 'established breeds' than that for 'dairy purposes,' as the following awards and names of exhibitors will testify. Mr. LANGSTON, 1st; Colonel PENNANT, 2d; E. LYTHALL (breeder of the first prize aged bull), 3d; HENRY AMBLER and JOSHUA PRICE, highly commended; E. BOWLY and H. RAWLINGS, commended." The first prize cow was a first-rate Short-horn, suitable for any class, as were nearly all the animals in this 'Milking Class.' It was thought by the Committee that this class would have proved a leading feature in the show, by pointing out the fine features and essentials of a dairy cow, best

adapted to milking purposes. As a specimen of what a dairy cow ought to be, we at once point to a cow (No. 951) exhibited by Mr. STEAD, of Owlerton, near Sheffield. This cow was apparently a cross between the Yorkshire dairy cow and Durham bull."

"*Heifers in Calf or Milk.*—The first prize was awarded to two roan Durham heifers, which represented every thing good but milking qualities."

"*Yearling Heifers.*—There were again in this class some first-rate specimens of the 'established' Short-horn breed: so much so, that the best pair of heifers, exhibited by Mr. AMBLER, of Watkinson Hall, were selected by some Australian breeders for exportation, and were sold for 250*l*." "Mr. DOUGLAS, of Athelstaneford, exhibited a pair of red Ayrshire heifers, which, for uniformity of shape and promise of milking qualities, were highly approved by the dairy farmers. The first cross between the Alderney and Short-horn bull is found to be especially good for dairy purposes, and is worthy of trial. The Alderney and Ayrshire also mix well for these purposes. The breeding of cows for 'dairy purposes' is a subject that requires considerable forethought and practice. Dairy produce is now at its top figure; and as a commercial eye is now being turned in that direction, the question need no longer be asked, Does a dairy pay? but rather, 'What is a dairy cow?'"

GREAT FECUNDITY OF PIGS.

MORROX'S *Encyclopedia of Agriculture* says:

"It is certain that none of our domesticated animals will afford such a large amount of food for human sustenance as the pig, in proportion to the readiness and expense with which it is raised, and the time necessary for raising it. The numbers now bred and fed are exceedingly great, and are yearly increasing. There is no class of animals equally prolific that are of any great value to man. Let it be supposed that a sow has her first litter when she is twelve months old; that she has a litter every six months; that she has an average of six pigs every litter; that she is kept in a breeding state till three years old, and then fattened off to average 4 cwt. when killed, and all the pigs to be fattened off by the time they are twelve months old, and to average 2 cwt. when killed; and it is a mere matter of calculation to show that there would be, at the end of six years, of breeding pigs—

612	2½ years old.
1,986	2 years old.
8,159	1½ years old.
7,175	1 year old.
16,281	½ year old.
88,936	sucking pigs.

65,529
58,217

118,746 in all, besides the sale of 27,508 cwt. of bacon; and besides 16,281 hogs ½ year old, and 88,936 sucking pigs.

"This is of course a ludicrously extravagant calculation, but it shows how very rapidly pigs can be made, under careful management, to propagate their species; they may not come up to the estimate above, but they may approach it."

A FEW years ago, several varieties of oats were imported into Canada from Great Britain. They retained their superiority one or two years, but rapidly degenerated afterward.

WHEAT OF THE SOUTH.

EDS. GENESEE FARMER:—The impression made by reading the following, from HERODOTUS, many years ago, has never been eradicated from the mind; and we now maintain it is the only reliable mode of acquiring accurate and correct information. He says: "The Egyptians, whenever any unusual circumstance occurred, committed the particulars to writing, and marked the results which followed it: if they afterward observed any similar indication, they considered that the results would be similar also."

This principle has its foundation in the idea that the laws of the Creator are without exceptions. This being true, we rely upon similar observations and investigations to prove the correctness of the following propositions:

First—That all plants are thermometers, with their zero points or vegetation degrees, below which the vital principle is congealed, and above the same is vegetable life and activity. This degree is different in each different plant, each having its own degree of vegetation or point of departure.

Second—Plants, after vegetation has commenced, require also a certain amount or *quantum of heat*, not any certain duration or continuation thereof. It is the amount, not the duration, that is essential to mature plants. "It is plain that a great heat during a short period must produce the same effect on plants with a less degree of heat during a longer term." Nor will any one doubt, but there is a *greater* amount of heat in a given number of days multiplied by a mean Southern temperature, than there is in the same number of days multiplied by a mean Northern temperature. If we are right—and we are supported by the very highest authority—then two propositions or results must follow: 1st, the *degree* of vegetation is reached earlier in the season South than it would be at the North. 2d, the amount of heat is realized in fewer days South than at the North, which is an additional amount of time gained.

So when the effect of both is appreciated, it will be found that Northern trees, tulips, roses, and *wheat*, will vegetate before, bloom sooner, and *ripen* earlier, South, than they would have done at the North. We know that Northern autumn and winter apples become summer and fall fruit further South.

If these facts prove anything, it is, that if we want *wheat* that will *ripen earlier*, it should come from the *North*, because it will *commence growing sooner*, and *ripen in fewer days*. The reverse of all this would follow from planting *Southern wheat*.

N. S. N.

CHESTER WHITE HOGS.—In the June No. of your most excellent *Genesee Farmer*, I notice an inquiry in relation to the Chester White Hogs. I reply: 1st—the thorough bred are peculiar for being always white; 2d—they are peculiar for being very quiet and peaceable; and 3d—they are peculiar for being in good condition for slaughtering at any time after being six weeks old. They are short-legged, broad on the back, and have short heads and noses; very quiet, easily fattened at any age, and have often weighed, at from 16 to 18 months old, over 600 lbs.—BELA DUNBAR, *North Chili, June 6th, 1860.*

RENOVATING PASTURES.

THE way to make more and better herbage grow in our pastures, is something that most farmers are anxious to find out. We have hundreds of acres of land called pasturage, on which no grazing animals, not even goats, can obtain such a support as will enable them to yield their owners a profit. We do not think it an object to attempt the keeping of stock on the poorest of this land, under any circumstances. It will not *pay* to improve it. Some persons seem to think that sheep may be kept to advantage on the hungry sands of Cape Cod. We think such tracts could more profitably be devoted to the growth of pine wood.

But we must have some pasturage, and there are lands which may be devoted to this purpose advantageously. We can not give such an exact description as will indicate, in advance, in all cases, what soils will pay for improvement in reference to this object. In many cases, lands which formerly produced very good grass, now produce a much less quantity of poorer quality. The causes of this decline are various, and perhaps all of them are not understood. Some of the most prominent are these:

1. There is more stagnant water in the soil than formerly. When the land was first cleared from the forest, the roots of trees tended to conduct the water into the earth; and after the roots decayed, the spaces they had occupied in the soil formed channels for the descent of water. This would continue for some time, till by gradual consolidation from the tread of animals and other causes, the soil and subsoil become more impervious.

2. In some instances, from the slow descent of water into the earth, or its being retained near the surface, mineral substances are deposited which are injurious to vegetation, and at the same time increase the obstruction to the discharge of water. The "hard-pan," as it is called in some parts of this country, and "moor-band" in England, will be recognized as producing this effect. The earth becomes cemented by a precipitation of iron, with, in some instances, other substances.

3. In consequence of the check to the discharge of water from the soil, the better kinds of herbage are liable to be winter-killed—they are "hove out," as the farmers say, by the frost—the expansion produced by the freezing of the water in the soil, breaking the roots, which, being exposed on the top of the ground, die.

4. In consequence of the decline of grasses, wild plants, shrubs and trees have sprung up, which have still farther checked the growth of grass.

5. It is probable that the soil has become actually exhausted, in some instances, of some of the elements essential for grass. The most important of these are probably alkalies and phosphates.

Such are some of the causes of the deterioration of pastures. We may now consider some of the remedies. The first is drainage. Of course it is only a particular class of soils that would be benefited by drainage; but wherever the conditions mentioned under the first and second of the above heads, are found, this is the proper remedy. The operation will be attended with considerable expense in some instances, particularly on hard, stony land, like some of our New England hills, and actual trial only can show whether the value

of the improvement will overbalance the cost. But trials may be made without much expense that will afford a guide. Make a few drains, of tiles or stones, not less than two and a half feet deep, in such places as seem to need them most, and when they have been in operation a year or two, their effect will be sufficiently obvious. If the wild vegetation declines, and more nutritious plants increase and thrive, drainage is the needful thing. Still the full effects can not be told till a sufficient time has elapsed to show what changes will take place. Carrying away the water will let the air into the soil, and this will decompose the substances which to the more valuable kinds of plants are unwholesome—as the compounds of iron above-mentioned, acids, etc. But in some instances it may be necessary to sow the seeds of the grasses it is wished to introduce, and we must wait till the new crop is fairly established before we can know fully how it will succeed.

Bushes may be destroyed by mowing; in many cases it is the only way they can be destroyed. Much pasture land is so stony that it can not be plowed; and if it could be, it is not likely that it would be thus benefited for grass. It is the testimony of many farmers that our hill pastures are better without plowing; they were generally brought into grass in the first instance without plowing, and it has been found that when the first sward has been broken and the surface reversed in position, so good and permanent a sward has seldom been formed again. Much of "natural mowing," so called, in the hilly parts of this State, Connecticut, etc., was never plowed, and it is considered better for hay than similar land which has been plowed.

It is admitted that some shrubs are very tenacious of life; but they can not long bear cutting close to the ground every year, in August, whether it is done in the "old" or "new" of the moon. Cutting the bushes strengthens the growth of grass, and this in turn hastens the death of the bushes. In some instances it is desirable to aid the grass by some top-dressing. Plaster has been used in this way with great advantage on some soils, and as we have before stated, it is the cheapest application that could be made. On soils to which it is adapted, it produces so firm a turf that nothing else will grow in it.

Sheep may be put on bushy pastures to advantage. If the bushes are cut every year, the sheep will crop the tender sprouts to such a degree that it greatly weakens their vitality; while at the same time the grazing increases the growth of the grass and white clover, which, as before remarked, tend to exterminate the bushes. It is a somewhat singular fact, but one well established, that land grazed by sheep rather improves in fertility. There are thousands of acres of land in Wales and Scotland, on which sheep have been kept for thousands of years (for aught that is known to the contrary), without the application of any other manure than that dropped by the animals, and yet the growth of grass is undiminished. There are instances in our own country, of sheep being kept a long time on land, with no diminution in the growth of grass.

Various experiments show that sheep may be made an important means of improving pastures. We have several times alluded to the experiments

of R. S. FAY, Esq., at Lynn. In a late conversation with that gentleman, he mentioned a plan which he had in view for improving a rough pasture, lying at a distance from his homestead. He said he intended to put on so many sheep that they would eat everything that was eatable on the land, and should give them oil-cake enough to fatten them. Thus he would have the wild vegetation killed and the land made rich by the oil-cake manure, which would insure a good growth of the right kind of herbage. The idea strikes us favorably; we can not see why something like this may not be done extensively. It might be well to confine the sheep at night by hurdles on the spots which most need manure—shifting from place to place as the requisite dressing had been applied.

It would be well, also, to make some experiments in the application of substances as top-dressings. We have already spoken of plaster. Wood-ashes, leached and unleached, may be tried, but it should be remembered that they will not do much good on wet land. Superphosphate of lime may prove to be a cheap fertilizer on some pastures. Any of these things may be sown at first in narrow breadths across the fields. A dollar's worth used in this way will afford a pretty fair indication of the profit or loss.—*Boston Cultivator*.

HAY-MAKING.

As the season for making hay is approaching, we will give a few words of caution in advance. *Don't dry your hay too much.* Hay may be dried till it is as worthless as straw. As a good coffee-maker would say, "don't burn your coffee, but brown it;" so we say, "don't dry your hay, but cure it." Our good old mothers, who relied upon herb tea, instead of "potecary medicine," gathered their herbs when in blossom, and cured them in the shade. This is the philosophy of making good hay. Cut in the blossom, and cure in the shade. The sugar of the plant, when it is in bloom, is in the stalk ready to form the seeds. If the plant is cut earlier, the sugar is not there; if later, the sugar has become converted to woody matter.

Hay should be well wilted in the sun, but cured in the cock. Better to be a little too green, than too dry. If, on putting it into the barn, there is danger of "heating in the mow," put on some salt. Cattle will like it none the less.

Heat, light, and dry winds, will soon take the starch and sugar, which constitute the goodness of hay, out of it; and, with the addition of a shower, render it almost worthless. Grass cured with the least exposure to the drying winds and searching sunshine, is more nutritious than if longer exposed, however good the weather may be. If ever cured, it contains more woody fibre, and less nutritive matter.

The true art of hay-making, then, consists in cutting the grass when the starch and sugar are most fully developed, and before they are converted into seed and woody fibre; and curing it up to the point when it will answer to put in the barn *without heating*, and no more.—*Ohio Cultivator*.

We do not exactly see how the "heat, light, and dry winds" can take the starch and sugar out of the hay; but the above remarks are, on the whole, correct and valuable.

WHAT I HAVE SEEN.

I HAVE seen, since 1841, land selling in the vicinity of Washington City, D. C., for from \$3 to \$12 dollars per acre, which cannot now be purchased for less than from forty to one hundred dollars per acre.

I have seen tens of thousands of acres of land in the vicinity, say within fifteen miles, of said city, which, since the period mentioned, could not be coaxed or forced, without the use of manure, or other *unusual* means, to grow ten bushels of corn to the acre, and not a spear of clover or timothy, made to produce from year to year, as much corn, rye, oats, potatoes, clover and timothy to the acre as is the ordinary product of lands in the western part of New York.

I have seen northern men coming here, purchasing these worn-out lands for a mere song, and by pursuing a system of culture altogether unknown by the farmers around them before they came, re-suscitate their lands, and make fine, productive farms out of what seemed to be irreclaimable, barren waste.

I have seen a northern farmer put a *team*—not a poor rat of a horse—to a plow, go into an "old field," which had not, for a period of time whereof the memory of man runneth not to the contrary, produced above ten, perhaps not five, bushels of corn to the acre, turn up the soil ten or twelve inches deep—the virgin soil, because never before disturbed by the plow—and without the aid of a spoonful of manure, or guano, or any other fertilizer, gather from twenty-five to thirty bushels of corn to the acre; persisting in thus plowing his land, though assured by those who ought to know, because they had lived all their lives upon and cultivated the same kind of soil—that they would spoil their land by turning under, so deeply, the little good soil there was on it.

I have seen the time when the manure thrown out of livery and other stables in that city, was considered of so little worth as to be given to any one who would haul it away; and I have seen it, as it now is, selling for from sixty-two cents to a dollar a load, and eagerly sought for to be hauled from one to six or seven miles over execrably bad roads—there being in this vicinity very few pieces of good road over a mile or two in length.

I have seen "old residents" hereabouts, trying to cultivate, as they call it, some two or three, perhaps five, hundred acres; and I have seen new comers sitting down along side of them, cultivating and obtaining more from fifty acres than could be got from the two or three hundred; while each year the soil of the small farm was improved and rendered more productive, and that of the large one was rendered less so.

I have seen many of these "old residents" occupying from three to eight hundred acres, living a distance of from half a mile to a mile and a half from any public road, surrounded by hogs, dogs and negroes, but not a sheep upon the place. I have seen neighbors living within half a mile of each other, who could not go to each other's dwellings without going, by the road, from three to five miles. I have seen men living within a mile of the mill, yet could not take a bushel of corn to it to get ground without going a distance of four miles.

And I have seen these same "old residents" strenuously oppose the opening of roads so as to enable farmers thus situated to go to mill, or to each other's houses, without going so far around. Why? Because such roads might pass through some part of their three, five, or eight hundred acres, of land worn out half a century or a century ago by their ancestors, by raising tobacco, without ever returning anything to the soil.

I have seen roads—or what are called by that name here—running over the highest hills and through the deepest vallies, twisting and turning, apparently to seek the very worst places and to avoid the best—going zig-zag, and round about, up and down, over sand and through deep mire—where they might be made upon much dryer and harder land, with easy grades, and shortened at least one mile in five; and I have seen farmers hauling manure from the city over these roads, having to use four horses to haul a load which might easily be hauled by two, and in less time, were the roads made in the proper manner and in the proper places.

"They order these things differently in Flanders," and I trust they will near the Capitol of the United States, one of these days, when the "old residents" shall have passed away, and their large farms been divided and sub-divided among "their heirs and assigns."

PEQUOD.

Bladensburg, Va.

SHALL AGRICULTURE BE TAUGHT IN OUR COMMON SCHOOLS?

EDS. GENESEE FARMER:—In my communication (May number *Genesee Farmer*.) upon the above topic, I partly promised to trouble you and your readers with a few more thoughts upon the same subject.

Although no arbitrary rule can be laid down in every individual case for the commencement of an education, yet it is conceded by all that it is better to begin when the mind is, like the soft clay, susceptible of a lasting impression. And it is a fact, that early impressions are the most lasting in our lives. Whatever, then, we wish to make the most durable, we should labor to give the earliest imprint upon the mind. It is vain to expect that every thing to be learned can be done at once; but "little by little" is a good motto to adopt in all pursuits.

If, then, it is desirable to give the rising generation an agricultural education, when is there a better time than to begin with the youthful and expanding mind?

This being a fact so self-evident, we will not stop to offer any other proof. Having, then, come to the conclusion that an agricultural education should begin early in life, here we again ask the question, Shall Agriculture be taught in our common schools? I answer that it can, and I believe *will be*, before another quarter of a century shall have passed—and may we not hope before another census shall be taken?

I will now pass to give you some reasons why Agriculture should be taught in our common schools. What is more common than the question which is continually coming from all parts of our country, "Why are so many of our young men, sons of farmers, turning their backs upon farming, and their faces toward other and more uncertain pursuits?"

This mystery, Messrs. Editors, is, in my opinion, contained in a nut-shell; and we will endeavor to crack it and bring it to the light.

Children, when first sent to school, are expected to learn their A B C's; afterward, to spell words of one, two, three and more syllables; next, to learn to read, write, cypher, study geography, grammar, astronomy, and perhaps natural philosophy, and a few other branches of an English education, and by this time he is ready to go away to some academy or high school, where he becomes associated with a class of lads from the city and large towns, who look upon labor as degrading, and upon him as their inferior! If he is ambitious to maintain his dignity, he believes it to be necessary to conform to the wishes, habits and feelings of his classmates; and long before he has finished his collegiate course of studies, he is most thoroughly finished for anything pertaining to farming or labor. There may be exceptions, but this is the rule.

Now I am not going to say that farmers' sons and daughters should not be educated, or educated abroad—far, very far from it. But how, and when, and where to do it, I shall reserve for another article.

W.

Trenton Falls, N. Y.

LETTER FROM UTAH TERRITORY.

EDS. GENESEE FARMER:—I received three numbers of the *Genesee Farmer*, and have read with much interest the contents. I like your paper much, as the articles are short and much to the point. I shall willingly recommend it as a cheap and useful paper.

In this cold, barren climate, there is much need of information on the cultivation of the soil—especially as most of the settlers here are strangers to farming and gardening operations.

The winter here has been unusually severe—the thermometer has, I believe, fallen as low as 22° below zero. Most of the peach trees are killed, and those which are alive are much injured; we shall have no peaches this season. The apricot blossoms are also killed and the trees much injured, as are the apple, pear and plum. Our native currants, and a few plums from the seed of hardy varieties, are the only trees that have escaped uninjured by the winter.

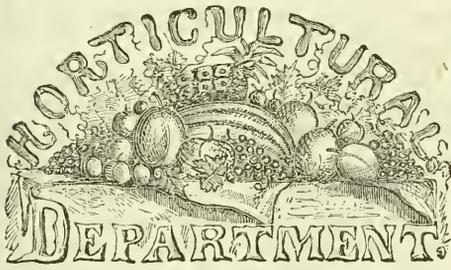
On Saturday, we had a heavy fall of snow ten or twelve inches deep, and on Sunday morning we had a hard frost. Icicles were hanging from the eaves twelve to fifteen inches in length. It was quite a novel sight, to see the green trees and vegetables above the snow, while the sun was shining over the valley.

This morning, Monday, we have had a sharp frost, and vegetation looks but sadly. The winter has been very severe on the cattle on the range. I was informed this morning, by a person who has just come in from Ruby Valley, in the South, that the snow fell there from two to three feet deep a few days since, and that of the herd of Major WARDEL & Co., which contained 3,000 head, only about 200 are alive.

Wheat looks well in the Valley, and we shall most likely have a favorable season for grain; but the fruit crop will be very meagre.

E. SAYERS.

Great Salt Lake, Utah Territory, May 14, 1860.



STRAWBERRIES.

Who, as at this season of the year he enjoys his dish of strawberries and cream, or looks with admiring eyes on his neighbor's glowing crop, does not again resolve to make a strawberry plantation? And again the question, "What to plant," recurs.

Much attention is now being paid to the improvement of this delicious fruit, and new seedlings are being sent out from different parts of the country every year, many of which fall into disuse and obscurity as suddenly as they are brought to notice. Several years of culture are required before a correct opinion can be formed of the merits of any fruit; and although every new fruit giving promise of extraordinary value should be sought after to be tested, yet the planter can not use too much discrimination nor care in obtaining the most reliable information in selecting standard varieties.

One of the oldest, most reliable and valuable early sorts is the *Large Early Scarlet*, extensively cultivated in all sections for an early crop, and as a staminate plant to use with the pistillate varieties; it is hardy, productive and good. In direct competition with this sort, within a few years the *Jenny Lind* has been gaining public favor. It originated at Cambridgeport, Mass., and has for the last three years received premiums at the exhibitions of the Mass. Horticultural Society, and also been the subject of special mention by the fruit committees, in whose opinion it is a great improvement on *Large Early Scarlet*, and fully equal to it as a fertilizer.

It is nearly double the size of the *Scarlet*, ripens at the same time, and produces more; and we can not hesitate to recommend it to our readers as the best early sort.

The engraving here representing this variety, is that of only a small sized specimen. The shape, as will be observed, is conical; the color is a rich, glossy crimson; the flesh is sufficiently firm to make it a valuable market variety, and at the same time abounds with a sprightly, rich, sub-acid juice.

Burr's New Pine is an old and justly high-prized sort. It is hardy, productive, and of a delicious flavor. As it is a pistillate variety, it requires to have some staminate sort planted with it.

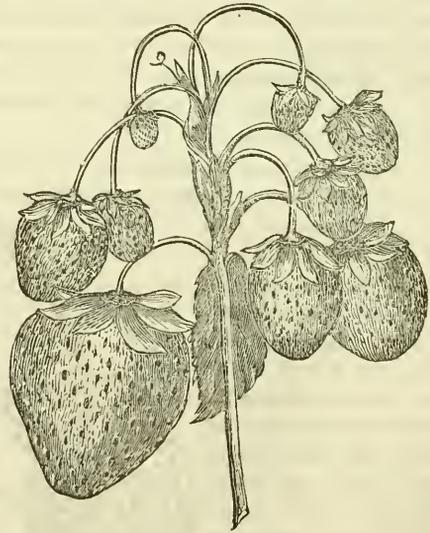
Cushing is a sort that has long been grown about this city as a market fruit. It is a large, light colored berry, of excellent quality, and quite productive.

Hovey's Seedling is too well known to need description. It is gradually giving way to other varieties; but many of the best cultivators still regard it as the most valuable market berry.

Hooker—A very large, dark colored, handsome berry, of exquisitely fine flavor. It is a vigorous grower, hardy, productive, and an estimable variety, of the highest quality.

Scott's Seedling is a fruit of second-rate quality, but beautiful in form and appearance, and so very productive as to make it a highly profitable market sort.

Among all the endless varieties of strawberries in cultivation, the *Wilson's Albany* is a perfect marvel for its productiveness; there is nothing else that will at all compare with it in this respect. The



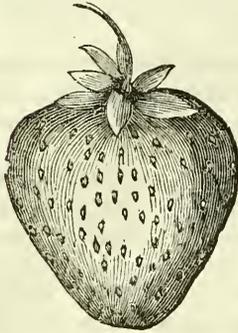
THE JENNY LIND STRAWBERRY

fruit is quite large, roundish, and sometimes irregularly shaped; of a dark red color; the flesh is firm, with a brisk acid juice. Its qualities altogether are such as render it probably the most profitable sort for market purposes.

Triumph de Gand is of Flemish origin, and has rapidly gained public esteem within the last three or four years; it is of the very largest size, usually of an irregular shape; the color is a beautiful crimson;

son; flavor sweet, rich and delicious; the vines are hardy, of vigorous growth, and quite productive.

Victoria (Trollope's Victoria), is an English variety that proves to be quite productive in this country; the berries are very large, of a roundish, conical shape, and of a light crimson color; flesh tender, sweet and delicious. It is a very beautiful fruit.



BURR'S NEW PINE.

For a very late crop for garden and market purposes, we can recommend the *Crimson Cone*. It is a regular and abundant bearer, hardy and vigorous; the flavor is of a rich sprightly acid, and the flesh is sufficiently firm to allow its transportation to market. It is an old sort, and has stood high in public estimation many years.

The soil into which strawberries are transplanted should be dry, deeply spaded or plowed and reduced to a fine tilth, and thoroughly enriched with good rotten manure if it is in any way impoverished; and after planting it should be well cultivated. In this way only can a good and remunerative crop be produced.

In large plantations, the plants are set in rows three or four feet apart, leaving a space wide enough for a cultivator to pass through, and a foot from each other in the rows. In garden beds, they are planted about a foot apart each way; and if kept in this way, without allowing the runners to form plants and fill the intervening spaces, much larger and better fruit will be obtained than if the plants should cover the whole surface.

Among the varieties of strawberries we have alluded to, three of them—

Burr's New Pine, *Hovey's Seedling*, and *Crimson Cone*—are what are called Pistillate sorts, the flowers of which are wanting in stamens, and without some of the other staminate sorts planted near or among them, would produce only a few imperfect berries.

The selection of these pistillate sorts and planting

them alone by themselves, has often resulted in complete disappointment.

The month of August is usually a good time to transplant strawberry vines; as at that time there are apt to be frequent showers, and the young plants also have time to become well established before winter sets in. Such plantations usually produce a fair crop the ensuing spring.

Should the weather continue dry when it is desirable to transplant the vines, the work should be done in the latter part of the day, and each plant receive a liberal watering; and the next morning early, be covered with a large leaf or bit of paper held down by a small stone. This covering may be kept on until the condition of the plants may appear to warrant its removal, and which may be done at evening, or on a cloudy day, so as not to expose the plants too suddenly to a burning sun. We have been thus minute on this point, as many fail in transplanting at this season for want of sufficient care.

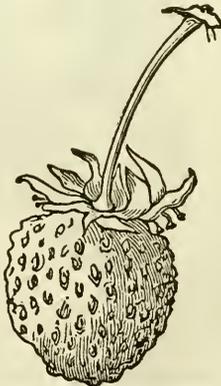
On the approach of winter, cover the plant lightly with some coarse litter, and they will come out in the spring prepared for a vigorous growth.

EXTRACTS FROM CORRESPONDENCE.

BARK LOUSE.—A. G. H., of Waukesha, Wis writes: "On page 95 of (March number) *Farmer* you recommend, as the best remedy for bark louse to 'scrub thoroughly with a stiff brush and soap-suds in June.' Very good as far as it goes, but quite impracticable in its application; for the lice are abundant on the smaller twigs and ends of branches beyond the reach of a brush, except with injury to the foliage—besides requiring much time at a busy season. The tar and oil, which you would not advise, is, I assure you, quite safe, of easy application and a sure remedy."

WOOD-PECKERS.—N. S., of Genesee Co., N. Y says wood-peckers may be prevented from injuring trees by spreading grafting wax on the parts already wounded; they will seldom afterward attack them. If they can find no insects in the fissures of the bark they have made, they cease their depredation. He has often thus saved pear trees, and never knew them to be attacked after wax was applied.

CUCUMBER STRIPED BUG.—A correspondent in Ohio, J. CLAY COX, writes that he has discovered that if cucumbers are not hoed when young, but the weeds suffered to grow, the yellow or striped bugs will fly over the ground without perceiving that there are any cucumbers there for them to feast on.



LARGE EARLY SCARLET.

CHARCOAL ON OLD ORCHARD LAND.—C. W., of Fairfax Co., Va., writes: "In a back number of the *Farmer* I noticed a statement that apples did not do well on the old lands in Connecticut. Charcoal will supply that which old land fails to furnish the trees with, while at the same time it acts as a total exterminator of the grub. They cannot work among it."

GRAFTING WAX.—J. P. Cosco, Wis., sends us the following recipe for making grafting wax that will not melt or crack: Take one pound tallow, two pounds beeswax, and four pounds rosin; melt together; pour into cold water, and when cold enough to handle pull it till white. Put on cold.

EXTRACTS FROM AN ESSAY ON "FRUIT CULTURE IN THE OHIO VALLEY."

BY W. D. GALLAGHER.

Awarded a Premium by the Kentucky State Ag. Society.

The author treats his subject under several heads, the first of which is the

COMMERCIAL FEATURE.

"Will fruit growing in the Ohio Valley answer the economical test, and 'pay'?"

To prove the affirmative of this question, the scarcity and insufficient supply of fruits throughout all the West, North-West and South-West, is alluded to as showing the demand for such produce.

"Why is it that, with the genial climate, the appropriate soils, and the favorable topographical features, of the extensive region watered by the Ohio river and its tributaries, labor enough is not found engaged in horticultural pursuits to supply fruit equal to the demands of the labor engaged in other pursuits? Can it be that the extent of this demand is not understood? Not if people who live in the country and own farms read the papers, or attend market with their eyes and ears open. Can it be that young trees are not to be had at reasonable prices, or not at all? Until very recently, it is true, there were not nurseries enough in the West to furnish fruit trees equal in kinds and quality to the wants of the people; but for many years large eastern nurseries have had their agents in this part of the country every season, with descriptive catalogues in hand, not only giving our people an opportunity to buy, but fairly begging them to do so. Can it be because orchards, early established in his region, have proved to be unproductive in fruit, or unprofitable in money? The contrary, in reference to each point, is notoriously true. What, then, is the reason that we have such an insufficient supply of fruit, and that so much of what we do have is indifferently good or positively bad?"

"Two answers, we suppose, may be given to this question, both of which are correct, and either of which is sufficient to account for the scarcity and inferiority complained of. The first is, that the great mass of the rural population of the West is composed of persons in very moderate circumstances

pecuniarily, who require quick returns for their labor, and can therefore better afford to accept at once the small profits yielded by wheat, corn, tobacco, hemp, and other field crops, than to await the larger profits of orchards and fruit gardens, which can be realized only after years of labor, care, and patient waiting. The other is, that fruit culture, to be successful, requires knowledge of varieties of fruits, acquaintance with the differing habits of trees, skill in planting, cultivating, and training, and great care in gathering, keeping, and marketing.

"At the present period, however, the rural population of the West is in comparatively easy circumstances, and in its ranks numbers many persons well skilled in the minutiae of horticultural pursuits. It would, therefore, seem that the scarcity of fruits which still prevails among us is without any sufficient or satisfactory cause; and hence we deem it the part of wisdom, and a matter of duty, to urge upon our agricultural friends, one and all, the systematic devotion of a reasonable portion of their time, labor and lands, to the careful cultivation of fruits."

"Examples of very great success in this business, in the United States, are by no means rare. Four or five years ago, a peach orchardist in Ohio was offered \$18,000 for the fruit on twenty acres of peach trees, while it was yet growing, and more than a month before the period at which the earliest part of it would ripen. He declined the proposition, and realized about \$20,000 from the same fruit by gathering and selling it to consumers himself. This, however, was a most extraordinary instance of a good combination of circumstances, viz: fine fruit, a ready market, and high prices. It is one of those happy accidents which occur only once in a very long while. And besides, four or five years of labor and care had preceded this crop, which was the first borne upon the trees.

"Some vineyards near Cincinnati have, in favorable seasons, produced nearly \$1,000 per acre; but a much more common yield, one year with another, is about \$250."

"In Washington County, Ohio, snug little fortunes have been made by raising one single kind of apple and shipping it South-West for the supply of New Orleans. Strawberry growers near Philadelphia have often pocketed \$200 to \$300 per acre for that delicious fruit. And a plantation of three acres in raspberries on the Hudson river is stated to have yielded as high as \$1,500 in a single year.

"But it can not be necessary to multiply such examples. Nor, on the other hand, is it altogether safe to take examples like these as a guide, and base operations upon them. A good knowledge of the character and habits of trees and plants, as well as experience and skill in their treatment at the outset, and subsequent management, is necessary to the attainment of results such as we have enumerated. No tyro in Horticulture can do these things. Any ordinarily intelligent and observing cultivator, however, who would go diligently and economically to work—availing himself of all sources of information and aiming to keep fully up with the times—might reasonably count upon attaining *half* the sums we have mentioned; and the immense difference which even that would make in his yearly receipts compared with what his tobacco, and corn, and briar

patches yield him, it would not take him long to 'cypher out.'"

"For good fruits, Cincinnati, Louisville, St. Louis, and scores of smaller cities in this immediate latitude, always present ready markets, in which high prices are paid. And then there are scores of populous towns and cities on the great lakes north of us, easily accessible by railroads, which are always desirous of receiving early supplies of the delicious fruits of the Ohio Valley, and able and willing to pay high prices for them.

"So that every obstacle named, on being approached and looked in the face, vanishes like a shadow, and leaves on the mind no doubt as to the practicability of pursuing Horticulture, on an extensive scale, in the latitude in which we live.

"If, then, it is profitable to go largely into fruit culture in this region, and if a paying market is at hand or within convenient reach, the next question that arises refers to

THE KINDS OF FRUIT.

"Still, it may be assumed as a rule which will be found to have but few exceptions, that the same varieties of fruits, generally, will be found equally well adapted, or nearly so, to all that part of the Ohio Valley which lies within two East and West lines drawn through Lexington in Kentucky and Columbus in Ohio. This embraces a large region of rich, beautiful and healthy country, and is naturally, we have not a doubt, taken in all aspects of the case, the best fruit district of the United States."

THE APPLE.

"Nearly every variety named in this list has been amply tested here, and may be relied upon as good—and as succeeding very well or tolerably well in most parts of the geographical belt described in a preceding division of this essay.

LIST OF APPLES ADAPTED TO THE OHIO VALLEY:

Summer.—American Summer Pearmain, Bevan's Favorite, Benoni, Black's Annet, Bohannon, Early Strawberry, Early Chandler, Early Pennock, Findley, Harvest (Yellow Harvest, Early Harvest), Keswick Codlin, Large Sweet Bough, Red Astrachan, Summer Queen, Summer Rose, White June (June-ating, &c.), Williams' Favorite.

Fall.—Cooper, Fall Pippin, Gravenstein, Jersey Sweet, Maiden's Blush, Pennsylvania Red Streak, Rambo, Smokehouse, Smith's Cider.

Winter.—American Golden Russet, Belleflower (Yellow), Belmont, Broadwell, Carthouse, Dominic, Dutch Mignonne, Fameuse (Snow Apple), Fort Miami, Jonathan, Lady Apple (Pomme d'Api), Limber Twig, Michael Henry Pippin, Milam, Newtown Spitzenberg, Orley (White Belleflower), Philip's Sweeting, Pryor's Red, Rawles' Janet, Rhode Island Greening, Rome Beauty, Roxbury Russet, Vandervere, Willow Twig, Wine Apple, Yellow Newtown Pippin.

BRICKS ABOUT MELONS.—The *Prairie Farmer* gives the following: Place four bricks about melons flat-wise, and a piece of glass laid over them will hasten the vines and produce early fruit. As the vines grow, turn the bricks up edge-wise. It will also protect them from the frost.

CHARCOAL AS A BLANCH FOR CELERY.

A WRITER in the *Gardener's Monthly* says: "Permit me to coin a noun expressive of a new use to which I have lately put this useful substance.

As a *mulch*, its value is universally recognized. As a *blanch*, I find it superior to any material I have ever tried, including earth, dry sand, sawdust, tan-bark, leaves, hay, litter, etc. Its advantages are manifold: no slug or insect will harbor in it; it drains perfectly; retains the solar warmth without over-heating the plant; absorbs all the ammoniacal gasses arising from the application of liquid or other fertilizers; will not rust the stalk; is easily washed out of the celery when dug, and can be used many times over with little loss. By proper management, also, two rows of celery may be grown where one is by the old method.

Dig trenches two feet apart, about eight inches wide, and six deep, and fill up to the level of the ground with a rich compost of loam, well decomposed manure, and *tanners' hair refuse*, (the latter being the best possible food for celery, and obtainable at the same price as stable offal,) and set out the plants about eight inches apart in single rows. On either side of the rows, about six inches distant commencing at one end, drive two stakes, say three feet long, and one to one and a half inches square one inch apart, to allow a board to slip in between them, and repeat the stakes at intervals of five feet or thereabouts, the entire length of your rows of plants; then between the stakes put boards twelve to fourteen inches wide, and a piece of board a each end of the trench, connecting their ends.

The young plants will need shading for a few days after transplanting, if the trenches run north and south; if east and west, they will not require it.

Draw the earth slightly away from the base of the boards, to form a *feeding trough*, into which pour liquid manure frequently during the growing season. When the leaf of the *central stalk* or *heart* of the plant shows itself above the board, fill in the whole space with coarsely pulverized charcoal (cinders from the smoke-stack of locomotives, or the braise of old charcoal hearths), holding the stalks snugly together in the left hand while filling in with the right. After a few days, place a second set of boards, which may be connected by cross-pieces nailed on at intervals on the top of the first, and repeat the blanching as before. I have found two blanchings to be sufficient.

For winter celery, the trenches should be dug four feet apart, one and a half feet wide, and the plants in two rows nine inches asunder.

They may be banked up in the usual way, first throwing a little litter on the top. Celery thus treated will keep perfectly; the loose texture of the charcoal preventing its becoming solid by the action of frost.

It may be objected that the above plan is more expensive than the traditional method; but it will be productive of so much higher quality, longer blanched stocks, greater crispness and whiteness and certain exemption from rust and decay, as fully to warrant the *apparent* increased outlay. If the boards are well coated with gas-tar or good boiled linseed oil, they will last many years; and the charcoal is worth, for general garden purposes, more than its cost, if not required again for blanching

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

TO DRY AND COOK SWEET CORN.—Soon as the corn is fit for the table, husk and spread the ears, in an open oven, or some fast drying place. When the kernels loosen shell the corn, or shell soon as you can. Then spread upon a cloth to dry in the sun, or on paper in a warm oven; stir it often that it may dry fast and not overheat. It more resembles the undried by its being whole, is sweeter, and retains more of its natural flavor by drying faster. When all dried, expose it to the wind by turning it slowly from dish to dish; the wind blows off all that troublesome white chaff.

In the morning of the day it is wanted, look it over and wash it; then boil gently in water sufficient to cover it. Refill with hot water if more is needed. A short time before you dine (it should now be tender and nearly dry), add some sweet milk, or cream, pepper and salt to taste; a little sugar is an improvement. If the cream is not perfectly sweet, it curdles.

HOW TO COOK ASPARAGUS.—Wash, and tie it in a bunch; put it in boiling water and let it cook till tender; then remove it with a skimmer to a tureen, and add butter to suit the taste. Serve with vinegar as for greens.

ANOTHER WAY.—Cut the asparagus in small pieces and put in a frying-pan; cover with water, adding a little salt; have ready light bread, toasted and buttered; when the asparagus is tender, pour it with the broth over the toast, and serve immediately. This is a nice dish for the sick.

Green peas can be cooked in the same way very nicely.

TO MAKE HARD SOAP.—One of your correspondents—C. A. CHASE, Ohio—wishes a recipe for making hard soap. I think if he will try this one he will be pleased with it. Take six pounds of soda, even pounds of grease, three pounds of unslaked lime, and four gallons of water. Put the soda, lime and water in a pot, and boil until they are dissolved; let the dregs settle; pour off the liquid and throw away the dregs; add the grease to the liquid and boil until it is of the consistency of honey; then pour it off to cool; set it in a dry place, and in a few days it will be dry enough for use.

FLOATING ISLAND.—A nice dish for tea may be made in the following way: Beat the whites of two eggs to a stiff foam, which pour upon a quart of milk previously set to boil; when the milk boils, the foam is done and you may take it off. Beat the yolks of five and whites of three eggs together, with sugar and salt to taste, and stir into the boiling milk; let it boil and place in your sauce dish, with the foam floating on the top. You may season with lemon or vanilla.

STEAM PUDDING.—One cup sour milk, one teaspoonful cream tartar, one-half teaspoonful soda, two eggs, one teaspoonful salt; make as thick as riddle-cakes, and steam one hour; add whatever suit you like.

FANCY BISCUITS.—One pound of almonds, one of sugar, and some rose water. Beat the almonds fine and sprinkle with the rose water; when they are smooth to the touch, put in a pan with flour sifted through a fine sieve; put the pan on a slow fire to dry the paste till it does not stick to the fingers; keep stirring to keep it from burning; then take it off and make it into fancy shapes; you may ice them, or not.

BLACKBERRY WINE.—Measure your berries and bruise them; then to every gallon add one quart of water. Let the mixture stand twenty-four hours, stirring occasionally; then strain off the liquor into a cask, to every gallon adding two pounds of sugar. Cork tight, and let it stand till the following October, and you will have wine ready for use without any further straining or boiling.

TO CLEAN SILK.—I have seen a good receipt for cleaning all kinds of silk, which I have used with good effect. Take equal quantities of alcohol, wood ashes, soft soap, and molasses. Mix them, and rub with a cloth on the silk; afterward rinse in clear water with a little salt or alum.

Your silk will look as good as new if it has never been washed before.

CAULIFLOWER.—This vegetable suffers worse in the hands of the cook, if possible, than in those of the gardener.

Put a good firm head in a sauce-pan of boiling soft water; cover closely, and not cook one minute after a fork will pass readily through the stem; drain and pour over melted butter.

DRYING UNPARED PEACHES.—Wash the peaches thoroughly, until the down is rubbed off. Cut them from the seed, and lay them skin downward on earthen ware or new tin. Heat them in the oven until they are scalded, not browned; then dry in the sun, or by the stove.

COCOA-NUT CAKE.—One pound sugar, one-half a pound butter, three-quarters of a pound flour, five eggs, one-half a teaspoonful soda, one grated cocoa-nut.

BATTER PUDDING.—One quart of sweet milk, five eggs, flour enough to make a thin batter; bake half an hour. Serve with hot wine sauce.

LEMON PIE.—Two lemons, two eggs, two cups of sugar, two-thirds of a cup of cream; grate the rind of the lemons and cut the pulp fine.

COFFEE CAKE.—One cup strong coffee, one cup butter, one cup molasses, one cup sugar, one teaspoonful soda; spices to your taste.

CRULLERS.—One tablespoonful butter, one tablespoonful sugar, one egg, one-half teaspoonful soda in three tablespoonful of milk.

CRUMPETS.—Two pounds of flour, two eggs, one-half teacup of yeast, one pint of sweet milk; a little salt.

CURRANT WINE.—One quart currant juice, two quarts soft water, four pounds best brown sugar.

SAUSAGE.—Ten pounds of meat, three ounces of salt, one ounce of pepper; sage to your taste.



New Advertisements this Month.

Mend Your own Tinware—A. J. Root & Co., Medina, Ohio.
 Pure Blood Ayrshire Cattle—Patrick R. Wright, Cobourg, C.W.
 Short-horn—T. L. Harison, Morley, St. Lawrence Co., N.Y.
 Grapes—Wm. E. Prince & Co., Flushing, N.Y.
 Suffolk Swine—Josiah Pickney, Boston, Mass.
 Electric Weather Indicator—Lee & Co., Newark, N.J.
 Just Published—C. M. Saxton, Barker & Co., New York.
 Iron Amalgam Bells—Hedges, Free & Co., Cincinnati, O.
 Reaping and Mowing Machine—Seymour, Morgan & Allen, Brockport, N.Y.
 Strawberry Plants—C. W. Seelye, Rochester, N.Y.
 Turnip Seed—J. M. Thorburn & Co., New York.
 New Publications—C. M. Saxton, Barker & Co., New York.
 Thorough Bred Cattle—G. Miller, Markham, York Co., C.W.
 Female Agents Wanted—Marie Louise Hankins & Co., N.York

A NEW OFFER—EXTRA INDUCEMENT TO FORM CLUBS.—
 We will send eight copies of the *Genesee Farmer* for the current half-volume (July to December, inclusive), and eight copies of the *Rural Annual and Horticultural Directory* for 1860, for three dollars (37½ cents each), and an extra copy of the *Farmer and Annual* to the person getting up the club.

THE CATTLE DISEASE IN MASSACHUSETTS.—The Legislature of Massachusetts, at its extra session convened for the purpose, has passed two bills for the suppression of the disease among cattle known as Pleuro-pneumonia, now prevailing in some parts of the State. We can not give the bills in full; their most important provisions are, briefly, as follows:

Cattle which are infected, or have been exposed to infection, shall be inclosed in a suitable place and kept isolated—the expense of their maintenance to be defrayed, one-fifth by the town and four-fifths by the State. The cattle may be killed at the discretion of the constituted authorities, and their value paid to the owners. The same authorities may also prohibit the departure of cattle from any inclosure, and also exclude cattle therefrom. They can also prohibit the passage of cattle through the town or city, or of bringing them into it. All cattle that are diseased or have been exposed to the infection to be marked on the rump with the letter P.; and no animal so branded shall be sold or disposed of without the consent of the authorities. All who know, or have reason to suspect, of the existence of the disease among their cattle, must give notice of the fact to the authorities.

In addition to the local authorities, three persons are appointed as Commissioners to examine into the nature of the disease, to attend the hospitals or quarantine stations, and to make a report of them to the Governor and Council.

The bills were passed June 12th, and take effect at once.

To carry these provisions into effect, an appropriation of \$100,000 was made.

NOTES ON THE WEATHER FROM MAY 15TH TO JUNE 16TH 1860.—The first half of May was warmer than any in the last 23 years, being 61.4°, or 8.2° above the average of this part of the month in so many years. This is 1.7° above the average for the same time in May, 1859.

The month continued to be warm to its close. The mean of the last half was 62.1°, or 4.4° above the average for the 23 years, and more than a degree above this period in last year.

Of course the mean of the month was high, being 61.8° or 5.7° above the average for May in 23 years, and about 1° above that of May, 1859. This makes May, 1860, hotter than any May in 23 years.

The effect of the warmth has been seen in the rapid progress of vegetation, and the early appearance of some fruits and vegetables, as well as in the heading of winter barley, rye and wheat. Early cherries began to be offered in the market before the end of the month, and some strawberries were nearly ripe on the 31st.

The quantity of water, 1.41 inch, is much below the average, but vegetation has received enough for immediate use. In the five months of this year, only 7.24 inches have fallen, not one-quarter of the annual mean.

The month has been healthful, and for the operation of agriculture and horticulture, excellent. The fine weather, and the rich foliage and abundant flowers, have made the month very beautiful.

The 20th was a cold day, and frost was on the railroad track at the east, but clouds and wind prevented any frost in this vicinity.

Thunder showers have occurred, but none of severity. But at Cincinnati, on the 21st, was that terrible tornado so destructive of property and life. It extended from Louisville, Ky., along and up the Ohio to and beyond Cincinnati. It extended over a width of 40 miles, and moved at least 50 to 60 miles an hour.

On the 26th a severe storm at Baltimore, Md.; also at Syracuse, Sodus, etc.; also west of us on the 28th, and on the 30th a tornado at Cattaraugus, Niagara Falls, and in several towns in Canada West, with hail in Orleans County.

The rain and melted snow, for the five months of this year, give 7.24 inches in depth, which is not two-thirds as much as fell in the same months in 1859 or in 1858.

June began with pretty warm weather, but the highest was only 82° at noon of the 14th. The last three days of this half were warm, and a strong wind, caused by a shower north of us, made a sudden change at 6 P. M. of the 15th. Except the rather cool weather of the 9th and 11th—which, however, gave us no frost—the month so far has been very pleasant and fine, and the progress of vegetation great. Cherries and strawberries have become abundant. A small proportion of rain has fallen upon us while showers and thunder storms have gone south and north of us. The earth is now rather dry, but not a drought is felt yet.

The average heat of the 15 days of June is 63.5°, or one-third degree above the mean of 23 years. This was 4° above this period in 1859, and very near that of 1858, but 2° above that of 1857.

The lowest temperature at 7 A. M. was on the 10th, though the lowest mean was on the 9th.

Violent storms and tornadoes, or heavy thunder showers, have distinguished this half-month. On the 2d at St. Louis, and also in Alton, Ill., was a violent storm. On the 3d, and farther north in Lynn Co., Iowa, and east to Comanche on the Mississippi, and across Illinois north of the Chicago and over Lake Michigan into that State, was a terrific storm of wind, hail, rain, and lightning. The cloud extended downward to the earth in probocis-like form, with sweeping desolation of habitations, crops, fences, and great loss of life. In three minutes the ruin was effected. Others less desolating have occurred in various parts of the land. For a month the elements have seemed to be in great commotion in some localities, while in other have been benignant smiles and prosperous days.

THE WEATHER AND THE CROPS.—We are indebted to several of our correspondents in different parts of the country for notes on the weather and the crops. We have room only for a few extracts:

E. F. BURROWS, Sheboygan Falls, Wisconsin, under date of June 11th, says: "We have been visited with abundant showers during the past three or four weeks, and crops, which were then suffering for want of rain, now promise an abundant harvest. Some of the showers were accompanied with hail, which did some damage—one house lost over 100 panes of glass. Some of the hail stones measured 1½ inches in diameter.

"The cut-worm is troublesome in some parts of the country—even cutting down fields of wheat! One man, near his village, has had to re-sow three acres with other grain, the worms having destroyed almost every stalk of wheat.

"In other fields they work in spots, sometimes cutting down strips, a few feet wide and several rods in length, where it did not come up as soon as the rest, and was more tender. As the stalk grows older and tougher, they dig up and work on the leaves."

A. MASON, of Laporte, Indiana, says: "The fly is eating up nearly all our wheat in this county, according to what I see, and we shall not have half a crop. I never saw such wholesale havoc in my life. My wheat looked nice in the spring, but to see the change now is very discouraging. One of my neighbors has 40 acres; he says he would take two dollars for it. Another has between two and three hundred acres; he says it will hardly pay for cutting. So I hope some one will find out some plan to destroy or get round the fly some way. The frost has killed most of the apples and cherries here. No peaches to speak of."

[We do not know what is meant by the "fly." Is it the hinch-bug?—Eds.]

J. H. H., of Augusta Co., Va., says: "The wheat crop in Virginia is very unpromising. The joint-worm, fly, and the frost, have made the bright prospects of many farmers to wither. There are hundreds of acres of wheat in this county that are not worth reaping. And the frost of April destroyed the fruit totally in some sections of the country.

The Detroit *Tribune* says: "The accounts respecting the crops are generally very favorable, but there are, unfortunately, some exceptions. Between Dayton and Kal-

amazoo, a formidable enemy has made its appearance in the shape of a kind of maggot; and a large number of fields are said to be almost entirely devastated. The hay crop will be enormous."

The Maysville (Ky.) *Eagle* says: "The wheat harvest of Kentucky will produce a lighter yield than has been for years. The wheat in that part of the State will not supply more than is required by the farmers, and home demand."

Henderson, Ky.—G. W. PRIEST, in the *Ohio Farmer*, says: "The wheat crop is very short—not more than one-third average—on account of winter-killing. Small crop of oats sown, but is promising."

Crops in Fairfield Co., Ohio.—J. O. SAIN, in the *Ohio Farmer*, says: "The weevil [midge,] has made its appearance in this section, in large numbers. Smooth wheat, which appears to have stood the winter freeze better than the Mediterranean, is literally 'alive' with them. A good crop in this country is getting to be considered quite rare. Oats and rye look well. There is a good prospect for a large crop of apples and all small fruits."

THANKS—THANKS—THANKS.—Our friends have already sent us about fifteen hundred new subscribers to the half-volume of the *Genesee Farmer*, commencing with this number. We thank them most sincerely. This encouraging appreciation of our efforts to furnish a cheap and valuable monthly journal, devoted exclusively to the interests of agriculture and horticulture, is most grateful to our feelings. Our liberal offer of Cash Prizes is designed to repay, as far as possible, all who labor to increase the circulation of the paper; but few of our friends seem to compete for them. We seldom receive more than five subscribers in a club. In this case we send a *Rural Annual* to the person making up the club. If any have not received it, through inadvertence on our part, we will cheerfully forward it on being notified of the fact. Those who have sent five subscribers and one dollar, can have three more for fifty cents (eight for \$1.50), and any greater number at our lowest club rates—18½ cents each.

DON'T FORGET THE PREMIUMS.—Few of our friends are taking any notice of our Cash Prizes for those who get up clubs to the current half-volume of the *Genesee Farmer*. The premiums are the same in number and amount as last year. To show about how large—or rather how small—a club will probably be necessary to take one of these Cash Prizes, we may state that last year a club of 22 subscribers to the half-volume took a prize of \$1; 23 a prize of \$2; 24, \$3; 25, \$4; 27, \$5; 28, \$6; 29, \$7; 30, \$8; 32, \$9; 36, \$10, etc. Are there any of our subscribers who can not take one of the prizes?

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—We have just struck off another edition of three thousand copies of this work for 1860. Not a reader of the *Farmer* should be without this work. It will be sent prepaid by mail to any address for 25 cents.

The *Rural Annual* has been published for five years—1856-7-8-9 and '60. The whole five volumes will be sent prepaid by mail for \$1.00.

OUR FRIENDS at post-offices where we have but one or two subscribers, would greatly oblige us by acting as agents for the *Genesee Farmer*. Now is the time to introduce the paper. The present number commences the half-volume for 1860. We will send five copies for one dollar (20 cents each), and a *Rural Annual* to the person getting up the club. Other inducements for larger clubs will be found in our columns. Our friends residing in places where we have now but few subscribers, could easily take one of the largest of our Cash Prizes. Again we ask you, kind reader, to aid us in this matter.

Inquiries and Answers.

CATTLE DISEASE.—I would like to know your opinion in regard to the cattle disease called the *Pleuro-pneumonia*, which is now prevailing in the north part of Worcester county. The State Committee has caused to be killed about one thousand head already. It seems to me to be a great waste of property to kill all cattle that have been exposed to the disease. Is there no other remedy?—ASA H. POPE, *North Oxford, Mass., June 5, 1860.*

We can give no opinion on this subject. If the disease can be arrested by the slaughter of all the affected cattle, it will be a great blessing—although it may appear a great waste of property. We were in England when the disease raged there some years ago. We have known several head of cattle to be badly affected in a herd; some of which recovered, and many others in the same herd were not attacked at all. We were on the farm of a large dairyman at Moreton Corbet, Shropshire, when the disease appeared in the neighborhood. He immediately drenched all his cows with half a pound of Epsom salts, and a quarter of a pound of sulphur, and two ounces of spermaceti, dissolved in a quart or three pints (we are not sure which,) of warm water. His entire herd escaped,* although the cattle on an adjoining farm were attacked and two or three died. We can not say that the medicine he used was the cause of his escape, or that experience has shown it to be generally useful.

WHAT IS THE LARGEST PIG ON RECORD.—(R. T.) The largest pig we recollect ever to have heard of, was one of the old Cheshire breed. Mr. CULLEY, in his work entitled *Observations on Live Stock*, published in 1807, makes the following statement in regard to it:

“On Monday, the 24th of January, 1774, a pig (fed by Mr. JOSEPH LAWTON, of Cheshire) was killed, which measured from the nose to the end of the tail, three yards eight inches, and in height four feet five inches and a half; when alive it weighed 12 cwt. 2 qrs. 10 lbs.; when killed and dressed, it weighed 10 cwt. 3 qrs. 11 lbs. avoirdupois. This pig was killed by James Washington, butcher, Congleton, in Cheshire.”

If any of our readers know of a more gigantic specimen, we should be glad to hear from them.

MEASURING HAY.—(E., *Cockville.*) As you say, the rules given for ascertaining the weight of hay by admeasurement vary considerably. We have given all the information we possess on this subject. We should be glad of reliable data in regard to this matter.

THE OX-EYE DAISY.—(*Lewis Co.*) The best way to get rid of this weed is to cut it before the seed is formed. In this way you will check its propagation, and the mown weeds, when as thick as you mention, will afford very fair hay.

CARROTS VS. PARSNEPS.—I would like to know which is the most nutritious and profitable for feeding stock, especially horses, carrots or parsneps?—R. W. McC., *W. Loughby, C. W.*

Neither is perhaps most profitable under all circumstances. Carrots are of all roots the best for horses; for cattle, the parsnep is preferred. Their *ultimate* composition is very similar to the carrot, but they contain about 4 per cent. less water, and are consequently more nutritious. Unlike the carrot, there is no soluble albumen (white of egg) in parsneps, but in its place we have casein (cheese). The starch, which we find in considerable quantity in the parsnep, (3½ per cent. in the fresh root and 1 in the dry,) is replaced by sugar in the carrot. From their ability to sustain severe frost without injury, parsneps are especially worthy of cultivation as a root crop for the Canadian farmer. They may be left in the ground in winter, and are then considered better for feeding stock in spring than any other root; and when fed to cattle cause them to yield milk of a richer quality. They may be grown on almost any soil, if deeply plowed and cultivated; will bear heavy manuring, and yield 600 bushels or more per acre. Care must be taken that the seed sown is not more than one year old, otherwise it is not certain to grow. Parsneps should be sown as early in the spring as the ground is in good working order. Carrots can be sown with advantage considerably later than parsneps and prefer a rather light soil. If properly cultivated they will yield from 500 to 1000 bushels per acre, and must not be allowed to freeze.

SOAKING SEED CORN IN CHEMICAL SOLUTIONS.—(S. I. *Green Bay, Wis.*) We did not say (see “Notes for the Month” in the May number) that soaking seed corn did no good, but, on the contrary, that it “facilitated the softening of the husk and rendered germination easier. What we said was, that the small quantity of any ingredient, such as ammonia, chlorine, etc., which seed corn absorb from a solution, could have any material effect after the growth of plants, was inconsistent with all our ideas of the nourishment and growth of plants. We do not think that the seed necessary to plant an acre of corn could absorb from a solution of ammonia, more than one ounce of ammonia. Now, the crop of corn obtains from the soil during its growth say 50 lbs. of ammonia, and does not seem probable that the extra ounce absorbed in the seed could have any effect, unless it be, as we have said, in softening the husk, etc. So of chlorine, potash, etc. We have applied over 100 lbs. of ammonia per acre to corn this spring, and expect a large crop as the result but we should expect little increase from the application of one ounce per acre.

BELLS.—(M. P. S.) The best and cheapest bells for ordinary purposes are the “Iron Amalgam Bells,” manufactured by Messrs. HEDGES, FREE & Co., of Cincinnati, Ohio. There is one of these bells in the nursery ground of C. W. SEELYE, of this city. It is sonorous and durable and cost far less than brass or steel bells. You will obtain full particulars by writing to the manufacturers. You will also find their advertisement in another column.

AGRICULTURAL CHEMISTRY.—(C. H., *Andes, N. Y.*) Norton's *Elements of Agricultural Chemistry* is the best work for you to commence with. We will send it to you prepaid by mail for 75 cents.

RED ROOT.—Can you or any of your correspondents tell me how to destroy red root in my wheat fields?—J. N.

There is no other way than to pull it out by hand. It is a terrible pest, and every farmer should go over his wheat fields in May and pull it out while in flower. When once it gets possession of a farm, it is exceedingly difficult to destroy it, as the seeds will lie for many years in the soil without germinating. The root is *annual*, and the plant consequently dies after perfecting its seed, but the trouble is to destroy the seed. It has been recommended to harrow the stubble immediately after harvest, so that the fallen seeds might germinate, and then to plant corn, or some other hoed crop, the next summer, so that the plants might be destroyed. We have heard one said that two successive crops of buckwheat would destroy red-root, but have had no experience on this point. We should be glad if some of our correspondents could give us some light on this subject.

BUDDING PEACH TREES.—Can you or any of your readers inform me if the Peach is "true to the pit?" that is, if the tree bears the same kind of fruit as the pit planted? If not, when is the best time to bud or graft, and how?—I. M. H., *Tioga Co., N. Y.*

The varieties of Peaches do not reproduce themselves from seed.

The proper time for budding in this vicinity is August and September—the actual time of the commencement and ending of the season depending much upon the weather. As soon as the buds are well developed, it may be regarded as a proper time to commence budding.

PROPER SOIL FOR APPLE ORCHARDS.—I have recently purchased a small farm, the soil of which is a good sandy loam, with some limestone and hard beds, with a subsoil which is generally a mixture of gravel, clay, and coarse sand—clay predominating. Would you consider such a soil well adapted for apple trees? and what kinds would you recommend for an orchard of 100 trees?—J. A. S., *Watts, C. W.*

For your latitude, the following are some of the most suitable varieties—the proportions of which must be adapted to suit circumstances:

Red Astrachan, Early Harvest, Early Strawberry, Golden Sweet, Fall Jenetting, Full Pippin, Gravenstein, St. Lawrence, Rambo, Baldwin, R. I. Greening, Roxbury Russet, Golden Russet, English Russet, Talman's Sweet, Fameuse, Comme Gris.

APPLE ORCHARD.—I wish to set out an orchard in the spring, and wish to know the most profitable, thrifty, and arduous trees, to set out in this northern climate. * * * The land is a fine clay loam, with limestone and clay bottom; it is warm and excellent clay land.—D. W. G., *Albionville, Prince Edward Co., C. W.*

The answer to the previous question will apply to this.

DAIRY FARMING.—(M. B. ADAMS.) The best work on this subject is "Milk Cows and Dairy Farming," by C. W. FLINT, Secretary of the Mass. Board of Agriculture.

You can obtain it from the publishers, CROSBY, NICHOLS, WEBB & Co., Boston, Mass., who will send it prepaid by mail to any address on the receipt of \$1.25. It is a book which we can not too highly commend; we regard it as the best book on the subject in the English language.

CRANBERRY PLANTS.—(W. H., *New Germantown, N. J.*) V. H. STARR, of New London, Conn., advertises the plants for sale, and will answer all your inquiries if you correspond with him.

POISONED CATTLE.—A friend of mine had a valuable Durham bull, a yearling, which was observed to be sick about 7 A. M. He was lying down at the time, remained in that position about one and a half hours, got up and went about three yards and fell down, seemed to suffer great pain, frothed at the mouth and nose and died in about three-quarters of an hour afterward. The same party lost within two days afterward two valuable grade cows, having all the symptoms which the bull had. The pasture on which they were grazing having been changed several times during the summer, the last change was to that of a low, swailly piece of ground, having around the edges of it wild parsneps growing. My friend thinks the cattle acted as if they had partaken of something poisonous. If so, would wild parsneps produce those symptoms? or, if not, would anything growing upon a low, swampy piece of ground produce such results? Remember, this was in the early part of October, before anything was frozen. If it was from having partaken of wild parsneps, what are the real symptoms and what the best antidote?—GEO. A. GURNETT, *Ancaster, C. W.*

The above has been overlooked for some time, or it should have appeared sooner. Wild parsnep is poisonous, especially the root; but we do not think the cattle would eat it—at least, not in sufficient quantity to cause death.

TURNIP SEED.—(W. S.) You can get the seed of the variety of turnip you mention from Messrs. J. M. THORBURN & Co., New York. They are honorable men, and you will doubtless get good seed from them. You will find the price given in their advertisement in another column.

LUMP IN A COW'S THROAT.—A hard lump, some four inches in diameter, has appeared under the jaws of my cow, below the gullet, and about on a line with the roof of the tongue. The lump is most apparent when the head is extended or depressed—eating, drinking and milking as usual. The knowing ones here are puzzled as to its cause and consequence. Will some of your correspondents give the result of experience or observation in relation to this?—C. S., *Naugary City, N. Y.*

PLANS FOR DWELLINGS AND BARN.—Will some of your numerous subscribers give us some drawings of houses, with the plans? American style, two stories, cost from \$1,500 to \$2,000. Also a convenient barn, with manure cellar—cost \$1,000. There are no models down here to build from.—C. W., *Falls Church, Fairfax Co., Va.*

WHITEWASHING FRUIT TREES—TAN-BARK AS A MULCH.—Fruit trees are often washed without any injurious results that we are aware of, but is thought by many to destroy hurtful insects.

Fresh spent tan-bark is injurious to plants; we should much prefer to use saw-dust.—J. C., *Coz.*

WEAK EYES IN CATTLE.—Can I do anything for a cow that can see very well in daylight, but after sunset her eyesight fails her, and at dusk she can not see at all. On a good moonlight night, she can see a very little. If any of your correspondents can answer this it will be thankfully received.—DONALD McINNIS.

EGG PLANT.—Having just obtained and sown a few *Purple Egg Plant* seeds, I wish to know how to cultivate this vegetable, and whether it is raised for ornament or for food; and if the latter, how they should be cooked.—W. H. H. P., *St. Lawrence Co., N. Y.*

BREEDS OF HORSES.—Will some of your correspondents favor us with a chapter on the different breeds of horses; which is best suited to the farmer; also, what race commands the highest prices?—A. MARTIN.

LOAM.—I would like to know if there is any amount of loam found at the foot of limestone cliffs, and if it is a good fertilizer and how to apply it.—J. E. H. CLUFFBRIDGE.

POISONOUS PARSNEPS.—Are parsneps which have grown in an old garden, that has not been cultivated for a few years, poisonous?—A. SHOOP, *Kittanning, Pa.*

Books, Pamphlets, &c., Received.

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 13 and 14. New York: D. APPLETON & Co. Price 15 cents per number.

THE NEW AMERICAN CYCLOPEDIA: A popular Dictionary of popular Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Vol. 9 Hay—Jer. New York: D. APPLETON & Co. 1869. L. HALL & Bros., agents for Rochester and vicinity. Price \$3 per volume.

GRASSES AND FORAGE PLANTS: A Practical Treatise, comprising their Natural History, etc., etc. By C. L. PLINT, Sec'y of the Mass. Board of Agriculture. With 170 illustrations. Fifth Edition, revised and enlarged. Boston: CROSBY, NICOLS & Co. Price \$1.25.

A VOYAGE DOWN THE AMOOR: With a Land Journey through Siberia, and incidental Notices of Manchouria, Kamshatka and Japan. By FERRY McDONOUGH COLLINS, United States Commercial Agent at the Amoor. New York: D. APPLETON & Co. Price \$1.25.

CASSELL'S POPULAR NATURAL HISTORY. Profusely Illustrated with Splendid Engravings and Tinted Plates. Published in parts on the 1st and 15th of each month. No. 3. Price 15 cents. New York: CASSELL, PETER & GALPIN, 37 Park Row.

THE TEMPERANCE SPEAKER. Compiled from various Sources for the use Bands of Hope, etc., etc., in their Monthly and Weekly Meetings. By Rev. JOHN MARSH, D. D. New York: American Temperance Union. Price 25 cents.

STORIES OF INVENTORS AND DISCOVERERS IN SCIENCE AND THE USEFUL ARTS: A Book for Old and Young. By JOHN TIMBS, F. S. A. With illustrations. New York: HARPER & Bros. Price \$1.

OUR FARM OF FOUR ACRES, and the Money we Made at it. With an Introduction by PETER B. MEAD, Editor of the *Horticulturalist*. New York: SAXTON, BARKER & Co. Price in paper, 25 cents; cloth, 50 cents.

ON THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION; Or the Preservation of Favored Races in the Struggle of Life. By CHARLES DARWIN, M. A. New York: D. APPLETON & Co. Price \$1.25.

THE EIGHTEENTH CHRISTIAN CENTURY. By the Rev. JAMES WHITE, author of "History of France." With a copious Index from the 2d Edinburgh edition. New York: D. APPLETON & Co. Price \$1.25.

LIFE AND TIMES OF GEN. SAM. DALE, the Mississippi Partisan. By J. F. H. CLAIBORNE. Illustrated by JOHN McLENNAN. New York: HARPER & Bros. Price \$1.

LIFE IN SPAIN: Past and Present. By WALTER THORNBURY, author of "Every Man his own Trumpeter," etc. With illustrations. New York: HARPER & Bros. Price \$1.

SELF-HELP: With Illustrations of Character and Conduct. By SAMUEL SMILES; author of "The Life of George Stephenson." New York: HARPER & Bros. Price 75 cents.

AN APPEAL TO THE PEOPLE In Behalf of their Rights as Authorized Interpreters of the Bible. By CATHARINE E. BEECHER. New York: HARPER & Bros. Price \$1.

PASSING THOUGHTS ON RELIGION. By the author of "Amy Herbert," "Thoughts for the Holy Week," etc. New York: D. APPLETON & Co. Price 75 cents.

COUSIN MAUDE AND ROSAMOND. By Mrs. MARY J. HOLMES, author of "Lena Rivers," "Maggie Miller," etc. New York: C. M. SAXTON & Co. Price \$1.

MISREPRESENTATION: A Novel. By ANNA H. DEURY, author of "Friends and Fortune," "Eastbury," etc. New York: HARPER & Bros. Price 50 cents.

FRIARSWOOD POST-OFFICE. By the author of "The Heir of Redclyffe," etc. New York: D. APPLETON & Co. Price 50 cents.

"HORATIUS" Quinti Horatii Flacci Opera Omnia ex Recensione. A. J. MACLEANE. New York: HARPER & Bros.

LIFE OF ANDREW JACKSON. In three volumes. By JAS. PARTON. Vol. 2. New York: MASON Bros. Price

STORIES OF RAINBOW AND LUCKY. By JACOB ABBOTT. New York: HARPER & Bros. Price 50 cents.

ÆSCHYLUS EX NOVISSIMA RECENSIONE. FREDERICK A. PALEY. New York: HARPER & Bros.

THE LONDON QUARTERLY REVIEW: January, 1860. American Edition, Vol. 53, No. 1. New York: LEONARD, SCOTT & Co., 29 Fulton Street. Price \$3 a year.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

REVIEW OF THE MARKETS.

GENESSEE FARMER OFFICE,
ROCHESTER, N. Y., JUNE 19, 1860.

TRANSACTIONS in Flour and Grain during the past three months have been characterized by the same unsteadiness, in regard to prices, which has been a prominent feature of the trade for a long time past. An advance in foreign markets has stimulated the inquiry for shipment, but the speculative feeling which has followed, and the increased firmness of holders, have very materially restricted the export trade. This state of things is matter of regret, inasmuch as it leads to an accumulation of stock at a season of the year when some kinds of Flour and Grain are liable to become heated and otherwise out of order. There is, moreover, no doubt of there being on hand, in the aggregate, an ample supply of breadstuffs for ordinary purposes, and it would seem to be desirable that prices should be kept sufficiently low to admit of an unrestricted trade, in order that the present rather large stock may be reduced, previous to the receipt of the new crop. We are aware that, between the present time and the next harvest, unfavorable events may occur which may lead to great changes in market values; but the prospect at present is favorable, and indicates no probability of a legitimate or permanent advance, but rather the reverse. In the various countries of Europe, the markets, generally, are calm and steady, with favorable weather, and fair prospects in regard to the growing crops. In England, the price of Wheat and Flour is relatively higher, compared with New York, than it has been for a long time past, and the difference is sufficient to leave a small profit on shipments, after deducting transportation charges and other incidental expenses. There is, consequently, a fair demand for Wheat and fresh ground State Flour, while old State and Western flour is heavy and dull of sale.

The market for coarse Grain is not active. Rye is steady, and tolerably firm. Corn is in fair demand, at rather better rates. Barley is neglected. Oats are dull, with a good supply.

The Pork market has recently been in a state of activity. The operations have been mostly of a speculative character, with a demand for future delivery at improving rates. The demand for local consumption has, thereby, received a check. A want of confidence has been the result, and prices are receding, with a dull trade. Beef has been firm, but as the stock is rather large, there is more disposition to sell. Bacon is scarce and improving. Cut Meats are steady. Prime Lard is scarce and firm, with an upward tendency. Butter is dull and declining, with a plentiful supply. Cheese is steady and in fair request for both home trade and export.

The market for Beeves is extremely dull and discouraging. The rates obtainable are 25 to 30 per cent. below those current at the same time last year. The quality of the cattle offered is fair, but the market is overstocked, and the inevitable law involved in the respective relations which demand and supply bear to each other, governs prices accordingly. The supply of Veal Calves is large, and the market is dull. Sheep and Lambs are abundant, and are sold at lower rates. Swine are not so plenty, and prices are higher with a good demand.

The demand for fine Wool is steady, and quite equal to the supply. Inferior and medium grades are dull and lower. In regard to the future, there is little doubt that prices will rule as high as they did last year, especially for the best qualities. Various circumstances concur to warrant this opinion, prominent among which is the light stock at present on hand, the mills generally in active operation, and an easy money market.

ROCHESTER MARKET. — June 19.

FLOUR—Is rather dull of sale. It is difficult to realize \$7.00 for best extras.

GRAIN—Wheat \$1.20@1.50. Best white Canada, \$1.45@1.50. Oats, by weight, 84c. Rye, 72c. Barley, 62c. Beans 50@60c. Corn, 58c@56c.

PROVISIONS—Mess Pork, \$17@820 per bbl. Hams—smoked, 0c. Shoulders do, 6c@7c. Lard, 10c@11c. Butter, 10c@13c. Cheese, 8c@10c per lb. Eggs, 11c per dozen. Chickens, 10c per b. Turkeys, 12c per lb. Potatoes, unsaleable at any price. HAY—\$8@13 per ton.
WOOL—Is selling slowly at 28c@36c per lb.

NEW YORK MARKET.—June 16.

FLOUR AND MEAL—The demand for Western and State ore is more active for export. Superfine State and Western, \$5.00@5.10; \$5.15@5.22 for extra do.; \$5.25@5.35 for choice do.; shipping brands of Ohio round hoop extra, \$5.35@5.60. Canadian Flour, \$5.25@5.40 for spring. Southern Flour is dull and easy. Baltimore superfine, \$5.50@5.90; and \$6@5.70 for fair choice extra. Rye Flour steady at \$3.40@3.45. Corn meal quiet at \$3.40@3.50 for Jersey.

GRAIN—Wheat market irregular, Chicago spring, \$1.19@1.19½; Racine spring, \$1.22@1.22½; Milwaukee club, \$1.23@1.25; good to prime white Indiana, \$1.38@1.40; red Ohio, 1.28. Rye in fair demand at 85c@86c for Northern. Oats firm at 88½c@88½c for Canadian; 40½@42 for Western. Corn, 61½@62c for Eastern mixed; 62½@64 for sound mixed Western; 67½@67c for round yellow, and 69@70 for Southern yellow.

PROVISIONS—Pork market active at \$18.12@18.25 for new less; \$17.37½@17.40 for old do.; \$13.62½@13.75 for new firm. Beef steady at \$4.75@5.00 for country mess, and \$11@12 for extra mess. Hams and Bacon quiet. Lard, 11½@11½c.

PHILADELPHIA MARKET.—June 16.

FLOUR AND MEAL—Market dull and prices unsettled. Superfine at \$5.25; common and extra brands, \$5.25@5.62; fancy, 5.25@5.67. Rye Flour dull at \$3.87½. Corn Meal, \$3.37½.

GRAIN—Wheat—Fair and prime Red at \$1.30; good Pennsylvania at \$1.35; prime Southern at \$1.20; fair quality, \$1.20, and \$1.30@1.50 for common and prime Southern White. Rye declined 3c. Corn—Prime at 67½c@68c; inferior at 60c@65c. Oats dull at 43c for Pennsylvania, and 40c for Delaware. SEEDS—LITTLE doing. Clover, in good quality, \$4.50@4.62½ per 64 lbs.

PROVISIONS—Market quiet. Mess Pork in lots at \$18.75@19.90 per bbl.; Prime, \$15. City packed Mess Beef, from \$13 to \$15, and steady, at 12c in bbls. and tierces, and 12½c@12½c in kegs. Lard from 8½c@11c for common, and 13c@15c for good roll.

BUFFALO MARKET.—June 16.

FLOUR—Market dull and heavy. Superfine, \$5@5.25; extra late from spring wheat, \$5.37½@5.62½; extra Michigan, Iowa, Indiana and Ohio, \$6@6.50.

GRAIN—Wheat dull and heavy. White Canadian, \$1.37½; Canada spring, \$1.10. No sales in oats. Barley nominal at 60@6c. Rye dull at 78@80c. Peas steady at 6@6½c.

PROVISIONS—Market steady. Heavy mess pork held at 17.50; light do, \$16.50; prime, \$13.50. Beef quiet at \$7.50. Bacon quiet at 7½c@8c for shoulders; 9½c for plain hams, and 0½@1c for sugar cured.

CHICAGO MARKET.—June 14.

FLOUR—Market heavy, and no sales.

GRAIN—Wheat declined ½c@1c. No. 1 spring, \$1.04@1.05; do. 2 do., \$1.02@1.02½; rejected, \$7@8c; Wisconsin club, \$7. Oats steady, but rather quiet. Barley heavy—No. 1, \$5@6; do. No. 2, 50@53c. Rye dull and merely nominal at 70c.

PROVISIONS—Generally quiet. Butter in good demand if well packed. Common Firkin, 8½@9c; best Western, 10@11c; Ohio and Michigan, 12@13c per lb. Eggs dull at 9c per doz.

CATTLE—Beef Cattle, common, \$2.50@2.75; extra and nice, \$3.75@4. Fat Hogs \$4.75@5 per cwt. gross. Sheep, \$3@3.50.

HIDES—Steady. Green, prime, 6½@7c; green salted, 7½@8; dry tanned, 15@15½c. Sheepskins, 10c@15c. Lambskins, 25@40c. Tallow, scarce at 9½c per lb.

WOOL—In good request. Fleece—common, 25@28c; ½, 25@30c; ¾, 31@35c; ¾, 35@37c; fancy, 35@40c.

TORONTO MARKET.—June 16.

FLOUR—No sales within the last few days of sufficient importance on which to base operations. The following are about the average rates: Superfine, \$5@5.08; extra, \$5.75@6; double extra, \$6.25@7.

GRAIN—Wheat freely offered and transactions large. Best grades realize \$1.35—the average price being \$1.30 per bushel. Spring wheat, \$1.06@1.07. Barley and Rye—The offerings are limited. The former is steady at 50c@55c, and the latter is nominal at 65c@70c. Oats at 32@34c. Peas active at 60@65c per bush.

PROVISIONS—Pork, no quotations. Fresh Butter, 12c; tub all at 8@9c for No. 1, and 8c for No. 2, per lb. Eggs, 8½@9c per dozen. Potatoes 15c@20c per bushel.

WOOL—An active trade is being done in wool. The best samples find ready sale at 25@27½c per lb; ordinary price, 20½c. Sheepskins, unclipped and of recent slaughter, \$1.50 each.

CATTLE—First class cattle are worth \$6.50@7; 2d do, \$4@6.50 per 100 lbs. Calves, \$4@5. Beef hides, \$6.50 per 100 lbs. heep, \$3.50@4.50. Lambs, \$1.75@2 each.

HAY—Very dull at \$9@12 per ton. Grass is selling freely at 1c per bundle, retail.

LIVERPOOL MARKET.—May 25.

FLOUR AND MEAL—Western canal Flour, \$5.76@5.60 for old, and \$6.24@6.72 for new; Philadelphia, Baltimore, and Ohio, \$6.24@7.20; Canadian, \$6.24@6.72; extra qualities, \$6.96@7.20; sour, \$5.52@6. Corn Meal, \$4.80@5.04.

GRAIN—American white wheat, \$1.66@1.73; red do, \$1.51@1.58; Canadian white, \$1.44@1.53; do, red, \$1.51@1.58. Indian corn—white, \$1.08@1.14; yellow, \$1.08½@1.05; mixed, \$1.02@1.08½. All per bush. of 60 lbs.

SEEDS—Clover—American red, 8½@8½c per lb.

WOOL—Domestic fleece, 11c@40c. Colonial, 10c@82c for the range of qualities.

LONDON MARKET.—May 28.

FLOUR—American sour, \$6.24@6.48; sweet, \$6.72@7.20.

GRAIN—Wheat—American white, \$1.50@1.59; do, red, \$1.44@1.62. Indian corn—white, \$1.05@1.05; yellow, \$1.05@1.14, per 60 lbs.

SEEDS—Clover—Red, 8@10c; white, 17½@19c per lb.

WOOL—Domestic fleece, 34c@40c; sorts, 30c@48c per lb.

BRIGHTON CATTLE MARKET.—June 14.

At market, 500 Beeves, 100 Stores, 1700 Sheep and Lambs, 100 Swine.

PRICES—Market Beef—Extra, \$7.50@8.00: First quality, \$7.25; Second, \$6.00@6.50; Third, \$5@6.00. Working Oxen—\$85@100. Milch Cows—\$39@41; Common, \$18@19. Veal Calves—\$3.00@5.00. Yearlings—None. Two Years old—\$18@24. Three Years old—\$24@28. Hides—6½c@7c per lb. Calf Skins—11c@12c per lb. Tallow—6@6½c. Sheep and Lambs—\$1.51@2.00; extra, \$2.75@4.00. Pelts—\$0.50@1.75. Swine—Fat Hogs, none. Stores, wholesale, 6@7½c; retail, 7c@8½c. Spring Pigs, 10c.

REMARKS.—The market is a little better than last week for a like quality.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 23 to 34 per cent.

ADVERTISEMENTS.

A few short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

FEMALE AGENTS WANTED.

\$3 A DAY.—Agents Wanted to travel for the MAMMOTH "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts. for a specimen copy, to MARIE LOUISE HANKINS & Co., Publishers, New York City. July—1f

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Crossed Sheep, Markham P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price \$5 per pair. July—1y

C. M. SAXTON, BARKER & CO.,

NO. 25 PARK-ROW, NEW YORK, have recently published: THE YALE AGRICULTURAL LECTURES. 12mo. Cloth. Price 50c.

THE COMPREHENSIVE FARM RECORD. Arranged for 25 years. \$3

THE ORCHARD HOUSE; Or, HOW TO CULTIVATE FRUITS UNDER GLASS. 40c.

THE YOUNG FARMER'S MANUAL; Embracing THE YOUNG FARMER'S WORKSHOP. By S. Edward Todd. 200 illustrations. Price. \$1 25

HUNT'S PATIENTS' AND PHYSICIANS' AID. A Manual for every family. \$1

COUSIN MAUDE AND ROSAMOND. A new volume by Mrs. Holmes. \$1

CATALOGUES, describing a full assortment of AGRICULTURAL Books, sent free to any address. July—1f

Turnip Seed! Turnip Seed!

J. M. THORBURN & Co.,

15 John Street,

New York,

OFFER to the trade and others the following varieties of **TUR-NIP SEED**, all of which they warrant of the same superior quality as have heretofore given such universal satisfaction:

EARLY WHITE DUTCH.....	per lb.,	75 cents.
RED-TOP STRAP LEAF.....	"	75 "
RED-TOP.....	"	75 "
WHITE STRAP LEAF FLAT.....	"	75 "
WHITE FRENCH (EXTRA).....	"	75 "
LARGE WHITE GLOBE.....	"	50 "
LARGE WHITE NORFOLK.....	"	50 "
LONG WHITE TANKARD.....	"	50 "
SWAN'S EGG.....	"	75 "
VERTUE'S LONG WHITE.....	"	75 "
GREEN GLOBE.....	"	50 "
WAITE'S ECLIPSE.....	"	50 "
YELLOW MALTA.....	"	75 "
YELLOW FINLAND.....	"	75 "
YELLOW STONE.....	"	75 "
ROBSON'S GOLDEN BALL.....	"	75 "
YELLOW ABERDEEN.....	"	50 "
LONG YELLOW FRENCH.....	"	75 "
DAGE'S HYBRID.....	"	50 "
IMPROVED RUTA BAGA, (AMERICAN).....	"	75 "
SKIRVING'S ".....	"	50 "
PURPLE-TOP ".....	"	50 "
MARSHALL'S PURPLE-TOP RUTA BAGA.....	"	50 "
BULLOCK'S HEART.....	"	50 "
DICKSON'S IMPROVED.....	"	50 "
LAINING'S ".....	"	(extra) 50 "
ASHCROFT'S ".....	"	50 "

ALSO—

ROUND and PRICKLY SPINACH.....	each	"	50 "
CORN SALAD of TETTIGUS.....		"	\$1 00
ROSE COL'D CHINESE WINTER RADISH, per oz., 20c; per lb.,			\$1 50.

J. M. THORBURN & CO.,

15 John Street, New York.

July—21

STRAWBERRY PLANTS.

THE subscriber offers for sale, ready for planting the latter end of Summer, an assortment of the very best varieties of *Strawberry Plants*.

They will be packed so that they may be sent to any part of the United States by Express or Railroad, and reach their destination in good condition.

In the collection may be found the following sorts:

<i>Bicton Pine,</i>	<i>Longworth's Prolific,</i>
<i>Black Prince,</i>	<i>McAdoy's Superior,</i>
<i>Boston Pine,</i>	<i>Mogawansing's,</i>
<i>Bury's New Pine,</i>	<i>Monroe Scarlet,</i>
<i>Crimson Cone,</i>	<i>Ohio Mammoth,</i>
<i>Cushing,</i>	<i>Peabody's Seedling,</i>
<i>Genesee,</i>	<i>Rival Hudson,</i>
<i>Hooker,</i>	<i>Scott's Seedling,</i>
<i>Hovey's Seedling,</i>	<i>Triumph de Gand,</i>
<i>Jenny Lind,</i>	<i>Trollope's Victoria,</i>
<i>Large Early Scarlet,</i>	<i>Walker's Seedling,</i>
	<i>Wilson's Albany, &c.</i>

Price—\$2 per hundred.

Remittances may be made by mail in current bank notes and postage stamps, properly enclosed in an envelope and addressed to the subscriber.

Descriptive Catalogues will be sent to all who apply and send a stamp for prepayment of postage.

Address

C. W. SEELYE,
Rochester Central Nurseries, Rochester, N.Y.

SEYMOUR & MORGAN'S PATENT

Reaping & Mowing Machine,

COMBINED with Palmer & Williams' Patents—which fully secures the exclusive right to this manner of Raking off the grain, and other valuable improvements.

The above machine is now so far perfected that we can confidently offer it to the farmer as a Good Mower and Reaper, with the addition of a good and reliable Raker attachment. It is made to cut five feet wide; a smooth edge knife is used for mowing, and the sickle edge for reaping; a quicker motion is given to the knife for mowing by changing pinions, which is easily done. Our wheels are larger than most of those used in other machines, and we claim that the machine runs easy, and is durable and strong, and we warrant it good in every respect.

Our agent for this section, **MR. C. MERIAM**, has for sale the *Seymour & Morgan Hand-Raking Reaper and Mower Combined*, with improvements, made by Messrs. Warder, Brokaw & Child, in Ohio, and is one of the best combined Hand-Rakers in the market.

SEYMOUR, MORGAN & ALLEN.

Brockport, June, N. Y., 1860.

July—21

IRON AMALGAM BELLS.

WE take pleasure in directing those interested to the annexed Price-lists of our cheap Church, School and Farm Bells, which, it will be observed, are offered at about one-third as much as is usually charged for those of corresponding size and weight of brass-composition, and less than half the price of steel, while their sweetness and depth of tone are pronounced by competent judges to be superior to the latter.

These Bells are composed of an amalgam, chiefly iron, which, while it is so much cheaper than the metals heretofore employed for the same purpose, yet seems to possess durability and sonorous qualities scarcely inferior to the former.

FARM, SCHOOL, HOTEL, AND SHOP BELLS.

FITTED WITH YOKE, STANDARDS AND CRANK, COMPLETE FOR USE.

16 inch Bell weighs, with hangings,	65 lbs.	Price,	\$6 00
18 " " " " " "	95 " "	"	9 00
20 " " " " " "	123 " "	"	12 00
23 " " " " " "	200 " "	"	20 00

CHURCH, ACADEMY, FIRE-ALARM, AND STEAMBOAT BELLS.

RIGGED WITH YOKE, STANDARDS, TOLLING-HAMMER, AND WHEEL

28 inch Bell weighs, with hangings,	300 lbs.	Price,	\$35 00
32 " " " " " "	500 " "	"	55 00
34 " " " " " "	650 " "	"	75 00
36 " " " " " "	800 " "	"	100 00
40 " " " " " "	1200 " "	"	125 00
46 " " " " " "	1250 " "	"	150 00

All bells WARRANTED (new one given in case of breakage by ringing) for twelve months from date of purchase, and shipped free of charge for drayage, on receipt of price.

HEDGES, FREE & CO.,

No. 6 Main Street, between Front and Columbia,

July—11

CINCINNATI, O.

JUST PUBLISHED:

THE YOUNG FARMER'S MANUAL. By S. Edwards Todd. Containing Practical Directions for Laying out and Working the Farm, and how to Erect Buildings, Fences, Farm Gates, &c. The work also embraces

THE FARMER'S WORK-SHOP,

With full directions for selecting and using all kinds of farm and shop-tools. The whole illustrated by 200 original illustrations. 1 vol., 12mo.; 459 pages. Price \$1.25.

ALSO, RECENTLY PUBLISHED:

THE YALE AGRICULTURAL LECTURES. Delivered at the Agricultural Convention, New-Haven, February, 1860. 12mo. Cloth. Price..... 50c.

THE COMPREHENSIVE FARM RECORD. Arranged for entering all the operations of the farm for 25 years.. \$3

THE ORCHARD HOUSE; Or, How to CULTIVATE FRUITS UNDER GLASS. By Thomas Rivers..... 40c.

HUNT'S PATIENTS' AND PHYSICIANS' AID. A Manual for every family..... \$1

COUSIN MAUDE AND ROSAMOND. A new volume by Mrs. Holmes..... \$1

CATALOGUES describing a full assortment of **AGRICULTURAL Books** sent free to any address.

C. M. SAXTON, BARKER & CO.,

No. 25 Park-row, New York,

Agricultural Book Publishers, and Proprietors of *The Horticulturist*. July—21

ELECTRIC WEATHER INDICATOR.

EVERY house should have one of these neat and curious instruments, which indicates the weather from 12 to 24 hours in advance. Sent free by mail on receipt of 50 cents, by addressing the manufacturers, **LEE & CO.,** Box 80, P. O., Newark, New Jersey. Liberal discount to agents. July—11

SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood **SUFFOLK PIGS**, bred from their importations of 1852, 1853, 1859, and their descendants.

Address **JOSIAH STICKNEY** or **ISAAC STICKNEY,** } Boston, Mass.
July—31

WM. R. PRINCE & CO., FLUSHING, N. Y., will supply during the summer all Native and Foreign **GRAPES**, in pots, packed safely for transportation. **STRAWBERRIES** of every variety after July. **BULBOS** Roots from July to October. Priced Catalogues sent to applicants who enclose stamps. July—11

SHORN-HORNS—Several young Bulls and Heifers, **SUFFOLK SWINE**—all ages, For sale by **T. L. HARRISON,** July—6* Morley, St. Lawrence Co., N.Y.

GEO. F. CURWEN West Haverford, Delaware County, Pa. Breeder of **DEVON CATTLE** and **ESSEX HOGS.** May 4

FAIRBANKS'



STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.

Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular. FAIRBANKS & CO.,
159 Broadway, New York.
S. W. STEVENS, Traveling Agent. Post Office address, Rochester, N. Y. June-6t

WOOD'S IMPROVED

MOWING MACHINE,

For 1860. Patented Feb. 22, 1859.

THE SUCCESS of this Mower during the past harvest is without a parallel in the history of Mowing Machines. In introducing it, I offered to the farmers a Mower at a less price than my in use; one that was light, durable, and capable of doing correct work. It has performed more than I claimed for it; the reduction in price and draft is equal to 25 per cent., as the trials and tests show. (see my pamphlets for 1860.) I have added some improvements to it for this year—a lever arrangement for raising or entering-bar; some of the parts are strengthened, and the driving-wheels enlarged.

I continue to manufacture, as heretofore, MANNY'S celebrated COMBINED REAPER and MOWER, with Wood's Improvement. This machine fully maintains its reputation as the best Combined Reaper and Mower yet introduced, and inferior to none as a Reaper or Mower.

I have added to this machine a Self-Raking attachment of my own invention—the most simple in its structure and mode of operation of anything of the kind ever offered to the public.

Price of two-horse Mower, delivered here on the cars..... \$80
one-horse do. do. do. do. 70
Combined Machine, do. do. do. 120,
Do. with Self-Raking Attachment,.... 140
June-2t WALTER A. WOOD, Hoosick Falls, N. Y.

S. TENT AND FLAG MANUFACTORY.

No. 42 Exchange Street, Rochester, N. Y.

TENTS to rent of the following sizes, suitable for the purposes designated:

for Agricultural Fairs, Conferences, Political or other large Gatherings.

- 80 ft. by 110 ft. 86 ft. diameter.
- 60 ft. by 90 ft. 70 ft. "
- 50 ft. by 80 ft. 60 ft. "
- 15 ft. by 20 ft. fancy 50 ft. "

for Camp Meetings, Military Encampments, Pic Nics, Fishing Excursions, &c.

- 24 ft. by 30 ft. 12 ft. by 17 ft.
- 16 ft. by 24 ft. 9 ft. by 12 ft.

Flags furnished with Tents, when required.
Parties wishing to rent, will please address the proprietor, stating what the Tents are to be used for. Also the facilities for transportation. Address JAMES FIELD, Box 701, June, 1860-3t. Rochester, N. Y.
N. B. Several large second-hand Tents for sale cheap—only at 60 by 90—ten feet wall with seats.

PITTSBURGH WATER CURE—A first-class CURE, in its sixth year. Room for over 100 patients. Send for circular to June-2t* Dr. FREASE, Pittsburg, Penn.

10 SUPERIOR SPANISH MERINO BUCKS for sale by June-6t GEO. CAMPBELL, West Westminster, Vt.

ATTENTION, FARMERS!

FROM the unparalleled success of the KETCHUM MACHINE the past season, I am induced to build for the harvest of 1860, A LARGER NUMBER THAN USUAL, and I offer them as the most perfect machine I have ever manufactured, and at prices to correspond with the times.

Howard's New Two-Horse Mower—all iron—light draft—no side draft—no driving fast to have them work well—no clogging—price only \$100.

Howard's New One-Horse Mower is of easy draft for one horse, and capable of cutting six to eight acres of any kind of grass per day—price \$75.

Wood Frame Two-Horse Mowers—price \$50.

Combined Mower and Reaper (Iron), with late improvements—took first premium at United States' Fair at Chicago last fall—price \$130.

All of the above Machines have Emery's Adjustable Lever and Roller, and various other improvements, and are warranted. Send for a pamphlet. Address June-2t R. L. HOWARD, Buffalo, N. Y.

MOWING MACHINE IMPROVEMENTS.

HAVING made very important improvements in the KETCHUM MACHINE within the last two years, I have done so with a view of their being attached to any Machine of my make prior to 1858, and all who desire will be furnished them at moderate prices. Those who have Machines numbering above 1540, with wood finger bars, can have the iron finger bars and all late improvements attached, which will very much lessen the draft of the Machines, and make them in many respects better than when new.

The improvements consist of a guard finger that will not break nor clog; an outer shoe with roller, that very much assists in turning at the corners, and the direct draft of the machine; a lever with roller, which is to be attached behind the inner shoe, by which the driver in his seat can raise the finger bar over obstructions, assist in backing, and transporting the Machine from field to field.

In ordering the improvements or extras, be particular and give the number of your Machine. Address June-2t R. L. HOWARD, Buffalo, N. Y.

NEW YORK STATE AGRICULTURAL SOCIETY.

PREMIUM ON FARMS, 1860—Premium for best grain farm of not less than 50 acres, under culture,.....\$50 00
Best grazing and cheese dairy farm, not less than 50 acres, under culture,.....\$50 00
Best grazing and butter dairy farm, as above,.....\$50 00
Best cultivated farm, not less than 50 acres, (woodland included,)\$30 00

Competitors for the premiums on farms are desired to give notice to the Secretary, on or before the 1st of July, of their intention to compete; and some member or members of the Executive Committee will be assigned to visit and examine the farms, and report on the same. B. P. JOHNSON, Agricultural Rooms, Albany, } Secretary. April 12th, 1860. } May-3t

PURE BLOOD AYRSHIRE CATTLE, IMPROVED "LONG-WOOL" SHEEP,

BRED BY PATRICK R. WRIGHT, COBOURG, O. W.,

PRESIDENT of Northumberland Co. Agricultural Society. His herd is well known as the best in Canada West. His prices are reasonable and terms liberal.

Full pedigree of all animals, U. C. Stock Register. July 1t

MEND YOUR OWN TIN-WARE—As every one can do, even Ladies themselves, when furnished with *Roots' Improved Portable Soldering Implements*. Also suitable for mending Brass and Copper Kettles, Jewelry, &c., &c. Implements and Materials, with full printed instructions, carefully mailed to any address, post-paid, on receipt of 30 cts., or four for \$1. Agents wanted. 1* Address A. J. ROOT & CO., Medina, Ohio.

DESIRABLE FARM FOR SALE IN VIRGINIA—250 acres, 6 miles from Fredericksburg. 1600 Apple, Peach and Dwarf Pear Trees; one acre each Raspberries and Strawberries. Soil clayey loam, clay subsoil. Climate pleasant, and location as healthy as any in the United States. Price, \$25 per acre. Cause, going South. ABRAM VAN DOREN, Falmouth, Va. June-3t

AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, Secretary. J. K. CHAPPELL, Agent. June-1f 64 Exchange Street, Rochester, N. Y.

AGRICULTURAL IMPLEMENTS—A general assortment at manufacturers' prices, for sale by A. LONGETT, May-3t 84 Cliff Street, New York.

WHAT EVERYBODY WANTS.

EVERYBODY'S LAWYER

AND
COUNSELLOR IN BUSINESS.

BY FRANK CROSBY,

OF THE PHILADELPHIA BAR.

- It Tells You** How to draw up PARTNERSHIP PAPERS, and gives general forms for AGREEMENTS of all kinds, BILLS OF SALE, LEASES and PETITIONS.
- It Tells You** How to draw up BONDS and MORTGAGES, AFFIDAVITS, POWERS OF ATTORNEY, NOTES and BILLS OF EXCHANGE, RECEIPTS and RELEASES.
- It Tells You** The Laws for the COLLECTION of DEBTS, with the STATUTES of LIMITATION, and amount and kind of Property EXEMPT from EXECUTION in every State.
- It Tells You** How to make an ASSIGNMENT properly, with forms for COMPOSITION with CREDITORS, and the INSOLVENT LAWS of every State.
- It Tells You** The legal relations existing between GUARDIAN and WARD, MASTER and APPRENTICE, and LANDLORD and TENANT.
- It Tells You** What constitutes LIBEL and SLANDER, and the Law as to MARRIAGE DOWER, the WIFE'S RIGHT IN PROPERTY, DIVORCE and ALIMONY.
- It Tells You** The Law for MECHANICS' LIENS in every State, and the NATURALIZATION LAWS of this country, and how to comply with the same.
- It Tells You** The Law concerning PENSIONS and how to obtain one, and the PRE-EMPTION LAWS to PUBLIC LANDS.
- It Tells You** The Law for PATENTS, with mode of procedure in obtaining one, with INTERFERENCES, ASSIGNMENTS and TABLE OF FEES.
- It Tells You** How to make your WILL, and how to ADMINISTER ON AN ESTATE, with the law and the requirements thereof in every State.
- It Tells You** The meaning of LAW TERMS in general use, and explains to you the LEGISLATIVE, EXECUTIVE and JUDICIAL POWERS of both the General and State Governments.
- It Tells You** HOW TO KEEP OUT OF LAW, by showing how to do your business legally, thus saving a vast amount of property, and vexatious litigation, by its timely consultation.

Single copies will be sent by mail, postage paid, to *Every Farmer, Every Mechanic, Every Man of Business, and Everybody in every State* on receipt of \$1.00, or in law style of binding at \$1.25.

\$1000 A YEAR can be made by enterprising men everywhere, in selling the above work, as our inducements to all such are very liberal.

For single copies of the Book, or for terms to agents, with other information, apply to or address

JOHN E. POTTER, Publisher,

May—3t No. 617 Sansom St., Philadelphia, Pa.

NEW BOOK ON GRAPE CULTURE.

BY WILLIAM BRIGHT,
Logan Nursery, Philadelphia, Pa.

JUST PUBLISHED,

BRIGHT'S SINGLE STEM, DWARF AND RENEWAL SYSTEM OF GRAPE CULTURE.

Adapted to the Vineyard, the Grapery, and the Fruiting of Vines in Pots, on Trellises, Arbors, &c.

IN this work full Directions are given for Cultivating and Fruiting Pot Vines; a new system of Pruning for the Vineyard; New Method of making Vine Borders; New Management of Cold Grapery; New Views on Fertilizing the Grape.

This is not a compilation of old matter respecting the Vine, but a *purely original work*, full of new suggestions for planting, pruning, training and fruiting the Grape, under all kinds of culture; drawn from personal experience, and recently confirmed by the opinions of the best Grape-growers in England.

Price of the work, *Fifty Cents* per single copy. Sent by mail to all parts of the United States and Canada, post paid, on receipt of the price. Postage stamps received in payment.

*A liberal Discount to the Trade.

Address
April—3t

WILLIAM BRIGHT,
627 Market St., Philadelphia.

TILES AND PIPES FOR UNDERDRAINS.

THE Rochester Brick and Tile Manufacturing Company are prepared to furnish Tiles and Pipes of all sizes for under-draining land, cellar drains, &c., at the following prices:



	Per 1000 pieces.	Per rod.
2 inch Sole Tile,.....	\$10 00	20c.
3 " " ".....	15 00	37½
4 " " ".....	30 00	56
5 " " ".....	50 00	75
8 " Round Tile,.....	80 00	1 25
2 " Horse Shoe Tile,.....	8 00	
3 " " ".....	12 00	
4 " " ".....	16 00	25
5 " " ".....	25 00	37½
6 " Pipe,.....	60 00	1 00
10 " ".....	100 00	1 75

The Tiles are strong, hard burned, and of very superior quality. Persons wishing Tiles will find it to their interest to call at the office of the Company, 22 Buffalo street, Rochester, before purchasing elsewhere.

A large quantity of Brick always on hand.

For further information, address

June, 1860.

W. OTIS, Superintendent,
Rochester, N. Y.

WM. PATERSON'S

Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the Manufacturer's agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the maker's name, to whom orders sent with cash or satisfactory references, here or in New York, will be promptly executed.

The aforesaid article consists principally of charred bones, dissolved by sulphuric acid, with a large proportion of Peruvian Guano, and other important ingredients.

The largely increased sales for the last six years, with the unsolicited Reports of Agents, &c., attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently decidedly more profitable.

It has been the aim of the Manufacturer to make this Manure what it is avowed to be, and the public may rely assuredly that it will continue to be uniform in quality and profitable to the buyer.

Circulars, with particular instructions for use, will be sent by mail when requested, or on application to his agents.

May—6t

WM. PATERSON.

PROPOSAL TO ESTABLISH

Sunday School Libraries Free of Cost.

WE OFFER our great Gospel Engraving after Thorwaldsen's CHRIST AND HIS APOSTLES, to Sunday Schools, at a price per hundred which will secure to them, by re-selling the picture at our regular retail price of one dollar each, a sufficient sum to purchase

Three Hundred Volumes.

This is the most popular religious engraving ever published in America, and the Sunday Schools to which we have supplied copies thus far have found no difficulty in disposing of from one to two hundred (and in one instance three hundred) in the space of from twenty to thirty days. Christian parents everywhere seem more especially anxious to possess the picture now that it affords the opportunity of encouraging their children in a good work, and affording them a means of moral and religious instruction.

Address
May—3t*

DAYTON & CO.,
37 Park Row, New York.

RUSSIA OR BASS MATS — Selected expressly for budding R and tying. GUNNY BAGS, TWINES, HAY ROPE, &c., suitable for Nurserymen and Farmers, for sale in lots to suit, by

D. W. MANWARING, Importer,
248 Front Street, New York.

Sept, 1859.—1y*

BOOK AGENTS WANTED.

FOR CIRCULARS address

May, 1860.—4t

GEORGE F. TUTTLE,
No. 100 Nassau Street, New York.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

“A STITCH IN TIME SAVES NINE.”

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, needless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mucilage, being vastly more adhesive.

“USEFUL IN EVERY HOUSE.”

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address **HENRY C. SPALDING & CO.,**
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve lozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by **HENRY C. SPALDING & CO.,**
48 Cedar Street, New York.

Address Post-Office, Box No. 3,600. Dec., 1859.—1y

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy, REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

No CHECK RODS—No FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to **JAMES G. DUDLEY,** General Western Agent, April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by **JAMES G. DUDLEY,** April, 1860. 93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best Safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent, April, 1860. at 93 Main street, Buffalo, N. Y.

ATTENTION SUNDAY SCHOOLS

BOOKS FOR NOTHING!

SUNDAY SCHOOL Superintendents, Teachers and Scholars, are hereby notified that we propose to sell our magnificent and popular engraving of Thorwaldsen's

CHRIST AND HIS APOSTLES,

at such a price per hundred to Sunday Schools as will enable the children to realize from their sale, at our own ordinary prices the means to purchase

A SUNDAY SCHOOL LIBRARY.

The profit on one hundred copies will secure

One Hundred and Fifty Volumes

of excellent Sunday School Books, and as the picture is in universal demand among Christian families of all denominations, none of these institutions will find any difficulty in disposing of at least that number in the churches to which they belong. One dollar for a superb picture of first-class size, viz., *three feet by two*, is a sum so small in proportion to the actual value of such a beautiful illustration of Gospel History, that parents are glad of an opportunity of supplying their families with such a subject for profitable contemplation, and at the same time affording their children an opportunity of assisting in the formation of a religious library for their own spiritual and mental profit.

DAYTON & CO., 87 Park Row, New York. May—31*

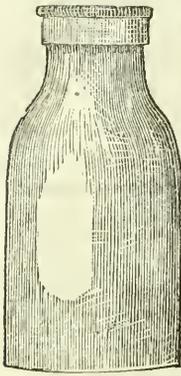
A. BROWER'S

Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather, impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. **A. BROWER & CO.,** May—6t. 4 Reade Street, New York.

“JERSEY” CATTLE—Commonly known as “ALDENNEY.” SHANGHAI, or TARTAR Sheep for sale. Apply to **WILLIAM REIDMOND,**

43 Barclay St., New York. May—8t



FRESH FRUITS
ALL THE YEAR!
 THE YEOMANS'
FRUIT BOTTLE!

FOR Utility, Convenience, Economy and Safety is unequalled for preserving Fruits in a fresh state, in any climate, an indefinite time.

"Having used these Bottles we find them exceedingly convenient, and just the thing needed."—J. J. THOMAS, in *Register of Rural Affairs*.

For Descriptive and Price Circulars, address the Proprietor at Walworth, Wayne Co., N. Y.
 May—4f T. G. YEOMANS.

STOREKEEPER'S DELIGHT!

VANDERHOOF'S PATENT PAPER BAGS—More convenient and economical than wrapping paper. Premium Family Flour and Grain Bags. Send for price catalogue.
 June—2t 171 West Street, New York.

CONTENTS OF THIS NUMBER.

Agricultural Statistics of Canada.....	201
"The Value of Manure depends on the Food".....	202
Do Animals consume Food in proportion to their live weight?.....	203
Chester Co. Hogs.....	204
Spirit of the Agricultural Press.....	205
Sheep Washing. Transporting Bees.....	2 5
The Eyes of Horses and Cattle.....	205
To kill Vermin on Cattle or Poultry. Tobacco Stalks.....	205
A Good Creed for Plowing.....	205
Cheap Apparatus for giving Salt to Sheep.....	205
Dogs and Bell Sheep.....	205
Black Hawks the best Roadsters.....	205
Profits of Fruit.....	205
Planting Trees. Profits of Sheep raising.....	206
Surface Manuring. Glass Lians for Milk.....	206
Improving Swine. Profits of Rhubarb.....	206
Thick or Thin Seeding of Oats.....	206
Ashes. Bloody Murraiu.....	206
Bug-eaten Peas. Best Layers.....	206
Short-horns in California.....	206
'Tree Planting Clubs. Large Calves.....	206
English Plows and Plowing.....	207
Land for Wheat can be made too fine.....	208
Notes from Canada West.....	208
Is the keeping of Poultry profitable?.....	210
How to get rid of Chicken-Lice, etc.....	210
Will it Pay to make Pork? A Profitable Dairy.....	211
Stock at the Fair of the Royal Agricultural Society, continued	212
Great Fecundity of Pigs. Wheat at the South.....	213
Chester White Hogs.....	213
Renovating Pastures.....	214
Hay-making. What I have Seen.....	215
Shall Agriculture be Taught in our Common Schools?.....	216
Letter from Utah Territory.....	216

HORTICULTURAL DEPARTMENT.

Strawberries.....	217
Extracts from Correspondence.....	218
Bark Louse. Wood-peckers. Cucumber Striped Bug.....	218
Charcoal on old Orchard Land. Grafting Wax.....	219
Extracts from an Essay on "Fruit Culture in the Ohio Valley".....	219
Bricks about Melons. Charcoal as a Blanch for Celery.....	220

LADIES' DEPARTMENT.

Original Domestic Receipts.....	221
---------------------------------	-----

EDITOR'S TABLE.

The Cattle Disease in Massachusetts. Notes on the Weather.....	222
The Weather and the Crops. Items, Notices, &c.....	223
Inquiries and Answers.....	224
Books, Pamphlets, &c., Received.....	226

REVIEW OF THE MARKETS.

General Remarks.....	226
Market Reports.....	226, 227

ILLUSTRATIONS.

The Jenny Lind Strawberry.....	217
Burr's New Pine. Large Early Scarlet.....	218

TO THE FRIENDS OF THE
GENESEE FARMER.
EXTRAORDINARY OFFER!

Subscriptions for the Half Volume.

Desirous of reaching the large number of farmers who do not now take a good monthly agricultural journal, we have concluded to take subscriptions to the coming half volume (July to December inclusive), at the following low rates:

TERMS FOR THE HALF VOLUME.

We will send the *Genesee Farmer* for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for \$1, and a copy of our beautiful 25-cent book, the *Rural Annual and Horticultural Directory*, prepaid by mail to the person getting up the club: eight copies for \$1.50, and a *Rural Annual*, prepaid by mail, to the person getting up the club; sixteen copies for \$3, and a *Rural Annual* and an *extra copy of the Farmer* for the year, or two for the half volume, to the person getting up the club.

CASH PREMIUMS FOR AGENTS

Who Get up the Largest Clubs of Subscribers for the Half Volume.

In order to stir up a little emulation among our friends who are disposed to form clubs, and also to reward them for their labor we offer the following liberal list of Cash Premiums:

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 15 3/4 cents each,) before the 15th day of October, 1860.
2. FIFTEEN DOLLARS to the person who shall send us the second highest number, as above.
3. TEN DOLLARS for the third list.
4. NINE DOLLARS for the fourth.
5. EIGHT DOLLARS for the fifth.
6. SEVEN DOLLARS for the sixth.
7. SIX DOLLARS for the seventh.
8. FIVE DOLLARS for the eighth.
9. FOUR DOLLARS for the ninth.
10. THREE DOLLARS for the tenth.
11. TWO DOLLARS for the eleventh.
12. ONE DOLLAR for the twelfth.

Our Agents, and Competitors for the above Premiums will remember that our terms are always **IN ADVANCE**.

It is not necessary that members of a club should be all at the same office. We will send to as many different post-offices as there are members in the club, if desired.

Subscription Money may be sent by mail at my risk, and you need not "register" the letters.

Address **JOSEPH HARRIS,**
 PUBLISHER AND PROPRIETOR,
 ROCHESTER, N. Y.

June 1, 1860.

THE GENESEE FARMER,
 A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
 IS PUBLISHED AT ROCHESTER, N. Y.,
 BY **JOSEPH HARRIS.**

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants. The address of papers can be changed at any time. Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher. Address **JOSEPH HARRIS,**
 Publisher and Proprietor, Rochester, N. Y.

THE GENESSEE FARMER

THE PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., AUGUST, 1860.

No. 8

FARM VISITS.

THE FARM OF JOSEPH WRIGHT, WATERLOO, N. Y.—On the 3d of July, in company with our esteemed correspondent, SAMUEL WILLIAMS, we spent some hours most agreeably in visiting the farm of JOSEPH WRIGHT, Esq., of Waterloo, Seneca Co., N. Y.

Mr. WRIGHT occupies about 300 acres. He raises no wheat, and but little grain of any kind, except what is needed for the use of his stock. He devotes much attention to the breeding and raising of blooded horses. He has now over ninety head of horses and colts, many of them of great value. He has been in the habit of using considerable quantities of still-slop-made manure; and this, together with the large quantity of manure made by his own stock—coupled with the best of culture—has made his land exceedingly rich. Rarely have we seen finer crops of grass, corn, potatoes, etc.

Mr. WRIGHT is a man of wealth, and having a taste for agriculture and horticulture, has expended liberally, but judiciously, in the improvement of his farm, horses, cattle, etc. He has tile-drained considerably, and reclaimed portions of his farm, which, from being unsightly swamp holes, that a man could not travel, he has converted into firm and highly productive land.

There is a bed of swamp-muck on the farm, and this is carted into the barn-yards and made into compost with the manure. This compost, when well rotted, makes an admirable top-dressing for grass—or, indeed, for any other crop; but Mr. WRIGHT speaks highly of it for the former purpose. We saw a 28-acre field of Timothy (four years from seeding), that was top-dressed with this compost in the early part of last winter. The crop is remarkably even all over the field, and we have seldom seen anything handsomer. Two and a half acres of compost-dressed Timothy had been cut, and yielded seven large loads of hay that it was thought would weigh at least 25 cwt. each. This would be

$3\frac{1}{2}$ tons per acre! So much for top-dressing. Four acres of top-dressed clover had been harvested, which, judging from the stubble, we thought must have been very heavy; and on inquiry, found it had produced eleven large loads of hay. On another 8-acre field of Timothy, Mr. WRIGHT had applied 40 loads per acre of raw muck. The crop, though by no means so good as the former, was much better than a field adjoining, where no muck had been used.

The crops of corn and potatoes were very fine, and the ground exceedingly mellow and clean. The horse-hoes are kept constantly going, and Mr. W. finds hand-hoeing unnecessary. He has raised for some years a kind of Southern corn, stalks of which we saw at the State Fair in Syracuse two years ago, and which, if we recollect right, were about 20 feet high. It is rather late, but matures here in an ordinary season. He has raised 215 bushels of sound ears per acre. It is now (July 3,) five feet high. We need hardly say that the land on which it grows is exceedingly rich.

Mr. W. grows every year several acres of corn for fodder, sown broadcast, and esteems it highly. This year he has ten acres. All his corn-stalks are preserved with care, and when cut up and a little mill-feed added, the cattle eat them with avidity. But for these he could not winter his large herd of stock. He uses two of J. E. DUTTON & Co.'s stalk-cutters—one driven by horse power, and one by steam. He thinks the former preferable, on account of the extra rates for insurance when the latter is used. One of the advantages of this machine is that it *crushes* as well as cuts the stalks.

Mr. WRIGHT devotes considerable attention to fruit culture, and with much success. In his garden we found nearly all the best varieties of strawberries, raspberries, currants, gooseberries, etc. The latter were mildewed this season for the first time. The gooseberry saw-fly, which has been so troublesome for a year or two past with us, has not yet

troubled him. His *White Grape* and *Large Red Dutch* currants are very fine. His dwarf pears look very well, although the soil where they are planted is somewhat too sandy, and the trees have been allowed to over-bear. He has a large *Bartlett* pear tree, trained on the side of the house, which not only looks handsome, but bears profusely, and affords the largest and richest fruit.

Mr. WRIGHT has set out ten acres of *Isabella* grape vines, which are making a fine growth. The land was an old meadow. A heavy dressing of manure was plowed in very deep, and the land planted to potatoes. It was then subsoiled 17 inches deep, and the next year it was also subsoiled the same depth in the opposite direction. The soil is now as fine and mellow as a garden to that depth. Potatoes are planted between the vines. Stakes nine feet long were put two feet in the ground, twelve feet apart each way, and the vines then set out on the south side of the stakes. When required to support the vines, more stakes will be put in. Mr. W. has also set out 60 *Delaware* vines.

We have not space this month to allude to Mr. WRIGHT'S stock.

HORACE WILLIAMS' GARDEN, NEAR BUFFALO, N. Y.—In company with several members of the Western New York Fruit-Growers' Society, we visited the grounds of HORACE WILLIAMS, near Buffalo, N. Y. He has 25 acres of land, situated on Buffalo Creek. The soil is an alluvial deposit, and with good culture yields large crops. It is Mr. W.'s intention to raise fruit for the Buffalo market. He has a cold graperly *seven hundred feet long!* It is full of exotic grapes, admirably trained, and loaded with large bunches.

Mr. WILLIAMS is engaged in the manufacture of glue from horn-piths—the piths being subjected to steam under pressure. This extracts the gelatine and leaves the phosphate of lime in a friable condition. When ground it must afford excellent manure.

Mr. W. has occupied this land only four years. He has accomplished much already. His strawberries, currants, etc., are truly magnificent. His dwarf pears are, if anything, too luxuriant, and require close summer pruning to throw them into fruitfulness. In a few years this will be a fine place.

JOHN JOHNSTON'S FARM, NEAR GENEVA, N. Y.—We have so frequently alluded to this farm, that a detailed description is unnecessary. When Mr. J. bought it, many years ago, it was so poor that one of his neighbors said he "would starve on it."

The farm is on the borders of Seneca Lake; much of it high rolling land, that would seem to need draining as little as any farm in the State. Still it is full of springs, and this was the cause of its unproductiveness. Mr. J. imported, at much cost, a few drain tiles from Scotland, and commenced underdraining. The result was so beneficial that he had them made by hand, at a cost of \$28 per thousand. He next induced the late JOHN DELAFIELD, Esq., to import a machine for making tiles, and after this the same tiles could be obtained in the neighborhood at \$8 per thousand. Mr. J. did not stop his draining operation (who ever did that once commenced tile-draining in a judicious manner?) till his whole farm was thoroughly underdrained from 2½ feet to 3 feet deep. He has laid, on about 306 acres of land, *fifty-two miles of under-drains*. In addition to this the land has been admirably cultivated; large quantities of clover have been grown and made into hay—not plowed in; a heavy stock of cattle and sheep has been kept; all the corn and spring grains grown have been consumed on the farm; and beside this, many tons of oil-cake have annually been purchased as food for cattle and sheep. All this has made the land very rich—and the land has made Mr. JOHNSTON rich in return.

It has been Mr. JOHNSTON'S practice to summer-fallow for wheat—plowing the land three or four times. But he finds that this makes the land too rich for *Mediterranean* wheat—it produces too much straw, and the crop falls down. Instead of summer-fallow, he crops the land with oats or barley, followed with wheat. Last year he had a 20-acre field that produced 35 bushels of *Mediterranean* wheat after barley.

JAMES O. SHELDON'S FARM, GENEVA, N. Y.—On the 6th of July we visited the farm of JAMES O. SHELDON, Esq., near Geneva, N. Y. Mr. S. is well known as a successful breeder and importer of Short-horn cattle. He has one of the finest herds in the State, numbering forty-five head. The farm contains 300 acres, principally laid down in grass. It is delightfully situated on the high rolling land which forms the Western slope of Seneca Lake. The house and farm buildings are in the centre of the farm, and the land recedes in a gentle slope on either side, but rises again at a short distance to the west, forming a beautiful background of sloping hill-sides, while the intervening space is dotted with noble specimens of the American elm, with their stalwart trunks and pendant branches. In the foreground, we have a very fine view of the

picturesque village of Geneva and the quiet waters of Lake Seneca, with its sloping banks on the opposite side, studded with peaceful farm houses and smiling fields of grain, white for the harvest. It is one of Nature's loveliest spots. As you approach the house along the quiet road, the fine trees, the artificial fish-ponds with weeping willows in the centre, the closely mown lawn, and well cultivated grounds and garden, all indicate the abode of wealth and taste.

Like Mr. WRIGHT, Mr. SHELDON is much in favor of top-dressing his grass lands. One field of timothy, 30 acres, was top-dressed with from ten to fifteen loads per acre of rather strawy manure, the early part of March. The manure has all disappeared in the dense sward, and the crop of timothy is very fine.

Mr. S. mentioned an interesting fact in regard to the value of salt, in seeding down to grass. He sows from one to two bushels of salt per acre, on the land at the time of seeding in the Spring, and the effect is quite marked. He sows ten quarts of timothy and three quarts of clover seed per acre. In a field of 30 acres, seeded down in the Spring, about the 10th of May, 1859, 15 acres received a bushel and a half of salt per acre, sown broad cast, at the time of seeding, and on this portion of the field the seeds took well, and the crop this year, is much larger on the salted, than on the unsalted portion.

Here is a 12 acre field of very heavy oats. They are the English potato oat, seed imported last Spring from England, weighed 48 lbs. per bushel, sown at the rate of $3\frac{1}{2}$ bushels per acre, which is heavy seeding for this country, but rather light for England, where four to five bushels per acre is not uncommon. It is the finest field of oats we have seen this season.

Here the men are thinning and hoeing eleven acres of white French Sugar Beets, which Mr. S. prefers to mangels, as more profitable and nutritious, though not yielding, perhaps, so large a crop. They are planted on the English system: ridges are made two feet apart, manure then put in, the ridges afterwards split with the plow and the manure covered, then rolled and the seed planted from 12 to 15 inches apart.

Here is eight acres of Canadian Blue stem wheat, the seed obtained from Mr. HARRISON, of St. Lawrence County. It stands up straight and stiff, straw nearly six feet high, heads large, and well filled. It is nearly ripe and the midge has not injured it. In the same field the Mediterranean wheat is down "as flat as a pancake."

WINTER BARLEY.

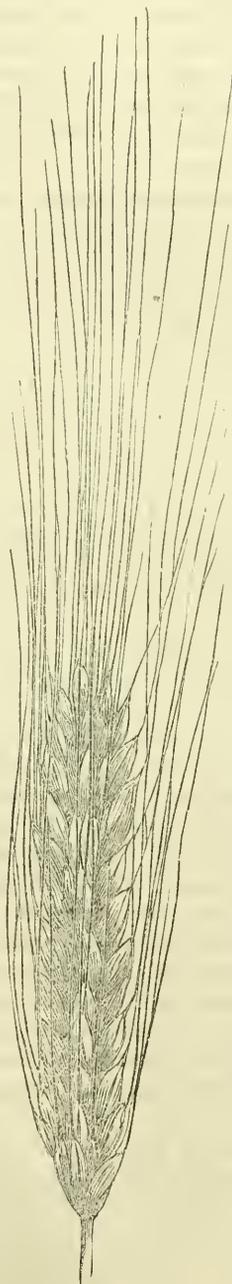
The cultivation of winter barley is much on the increase in this section. It differs in no respect, botanically, from the spring variety. It is spring

barley that has been sown in more southern latitudes, in the fall, till it has become capable of standing the winter.

We annex a cut of an ear of winter barley, grown by JAS. O. SHELDON, of Geneva, N. Y., the seed of which was obtained from Southern Ohio. It was harvested on the 25th of June. It was sown on the 25th of September; $2\frac{1}{2}$ bushels per acre.

Our severe winters here do not injure winter barley when it is sown on dry uplands. Like winter wheat, it does not succeed on low, moist land. It should be sown as early as winter wheat—some farmers think a few days earlier, though many do not sow till after they have got in their wheat. It requires the same culture as winter wheat. When sown on good soil, properly prepared, the yield is large. The sample is better, under such circumstances, than spring barley and weighs more to the bushel and commands, consequently, a higher price.

A correspondent in Kentucky recommends sowing winter barley after oats, rather than after winter wheat, for the reason that the land, having been plowed in the spring, can be got



WINTER BARLEY.

into better condition than that which has not been plowed for twelve months. Another advantage is, that when the barley is put in about the first of

September, all the scattering grains of oats will grow with the barley, thereby helping to cover the whole surface of the ground before hard weather sets in; and when the frost comes, the barley will be so firmly rooted and matted over the surface, that it will not suffer from severe weather, while the oats will be killed out and leave the barley to occupy the whole ground in the spring. He sows generally about the first of September, but if the weather is very hot and dry, prefers to defer it till cooler weather.

A FEW THOUGHTS ON WHEAT CULTURE.

WESTERN NEW YORK has long been celebrated for its fine wheat. According to the census of 1845, the County of Monroe produced more wheat than the whole five New England States. But within the last decade, a little insect made its appearance, and spread so rapidly and proved so destructive, that in the winter of 1856-7, the Farmers' Club of this self-same County of Monroe, at two consecutive meetings, advocated, almost unanimously, the abandonment of wheat culture in Western New York. One of our weekly agricultural papers took the same view of the subject. "Genesee Wheat," it was thought, was a thing of the past.

We took a different view of the matter; and in the *Genesee Farmer* for February, 1857, page 41, offered some reasons why the farmers of Western New York should not give up trying to raise wheat. These reasons were, briefly, that the soil of this section was natural wheat land: that if we could not raise wheat here it could be raised nowhere; that the midge, erroneously called the weevil, was no new insect, but that many years ago it was exceedingly destructive in some parts of Great Britain, but that the farmers had been able to render its attacks comparatively harmless; that by sowing early varieties of wheat in good season and on properly prepared soil, we could get wheat into bloom so early that the midge could do it little harm. The article concluded with the following paragraph:

"While nearly all the soil of Western New York is well adapted to wheat culture, there are on every farm some fields that are more suitable for wheat than others. We must confine the cultivation of wheat to such land. Let the portion of the farm less favorable to wheat be cultivated with those crops which, when consumed on the farm, furnish the most valuable manure. Let this be used to enrich the soil for wheat. (How this can best be done we leave for future consideration.) In short, sow early varieties of wheat on the best portions of the farm, underdrain, adopt a judicious system

of manuring, and our word for it, wheat culture will not have to be abandoned in Western New York."

We think the experience of the last three years has confirmed these opinions—expressed when all was doubt, uncertainty and gloom. This year and last the midge did comparatively little injury to

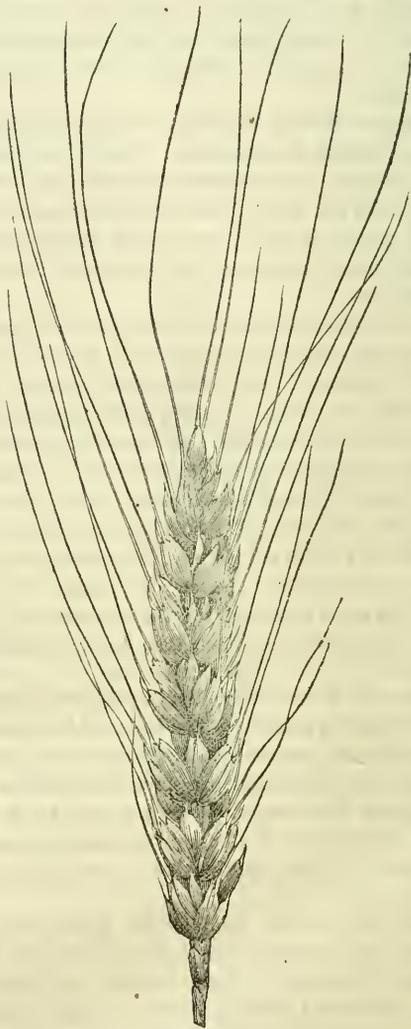


Fig. 1.

early wheat. The insect has not left us. The wheat on late, low, wet land, has suffered materially; but when wheat has been sown in proper season, on naturally dry or underdrained land, properly cultivated and enriched, and with an early kind of wheat, the crop has been generally good. The result is encouraging to the good farmer, and should serve as a stimulus to all.

The great object has been to get early varieties of wheat. The *Mediterranean* or red-bearded

variety, is the earliest of the older sorts, and generally escapes the midge. It has been very extensively sown during the past few years—in fact, it has been the predominant variety; but, though its quality has been greatly improved by cultivation, it is still, as compared with the *Soules* and other white wheats, an inferior kind, affording only a



Fig. 2.

Fig. 3.

Fig. 4.

second-rate quality of flour. Another objection to it is that the straw is weak, and on rich land it almost invariably falls down. We annex a cut (Fig. 1) of an ear of *Mediterranean* grown in this vicinity.

The *White Mediterranean* (Fig. 2), is a new variety imported from Europe, and introduced into this vicinity two years ago. We are indebted to J. C. MOVEAN, of Scottsville, for the samples. It is a white, bald variety, as early as the *Mediterranean*, and of much better quality. It yields well. Last year, in Lima, it yielded $38\frac{1}{2}$ bushels per acre, on the same day as the *Mediterranean*. It has, however, a weak straw, and is liable to lodge.

The *Early May* wheat (Fig. 3,) was obtained

from Missouri by JOHN JOHNSTON, of Geneva, N.Y. He sowed somewhat less than a bushel in the fall of 1858, and raised from it 31 bushels. He has this year a field of seventeen acres. At the time of our visit (July 6,) it was nearly ripe. Mr. J. said he should cut it in four or five days. The midge had hurt it very little, if at all. It is a bald, white wheat; ears rather small, but well filled, with light straw. It closely resembles, if it is not identical with, the *Boughton* wheat so highly recommended in Virginia. Last year the *Boughton* wheat raised in this vicinity from seed brought from Virginia was cut July 6th. The *May* wheat, raised from seed grown in Missouri, was cut by Mr. JOHNSTON last year about the 12th of July. If they are identical, the reason of the *Boughton* ripening earlier than the *May*, may be owing to the seed of the former having been grown probably in a more southerly latitude than the latter, and where it would ripen earlier. It is also probable that the Virginia seed was grown on poorer soil than that from Missouri—an additional reason for its ripening earlier when sown on stronger land.

The *Soules* (Fig. 4), where it escapes the midge, is unquestionably one of the best varieties grown in Western New York. It is too well known to need description. It is a bald, white wheat, with strong, stiff straw; stands up well, yields abundantly, and affords the finest quality of flour. If it was only a week or ten days earlier it would be all that could be desired. JOHN JOHNSTON informed us that he intends sending some *Soules* wheat South, to see if, after it has been grown there a few years, it will not ripen earlier when brought back to the North. Over 25 years ago, Mr. J., finding that his red-chaff bald wheat was getting later and more liable to rust, procured 28 bushels of white wheat from Indiana. It succeeded admirably, ripened early, and was in every respect "first best." But after a few years it, too, got late and rusted, and he was obliged to abandon it. He then got the



Fig. 5.

Soules, and for some years this was all that could be desired.

We present a cut of the *Canadian Blue Stem* wheat (Fig. 5), alluded to in our account of a recent visit to the farm of JAMES O. SHELDON, Esq., near Geneva, N. Y. It is the best crop of wheat we have seen this year. We sowed twenty acres of this wheat, ten years ago, with seed obtained from Canada. It weighed 64 lbs. to the bushel, and was said to yield large crops. With us it did not do well, probably owing to the fact that the land was not in good condition. It produced only 15 bushels per acre. We judge that it is best adapted for strong, rich land, and where the midge is not apt to be troublesome.

The comparatively good wheat crops the past two years will induce the farmers in this vicinity to sow largely this fall. This is well. But the lesson we have so dearly learned should not be forgotten. Three years ago, when many urged the farmers of Western New York to turn their attention to other crops, we advised them not to abandon their efforts to raise wheat. Now these same persons are foremost advocates for growing wheat again, while we think the danger now lies in their rushing into it too extensively, and without due preparation of the land. Sow only as much land as can be thoroughly prepared. It should be borne in mind that if the midge destroys five bushels per acre, it can be better spared from a crop which would, uninjured, yield 30 bushels per acre, than from a crop which would produce, if it escaped, only 15 bushels per acre. In the latter case the midge would destroy half as much as they leave, while in the former they would destroy only one-fifth. The same argument holds true in regard to all casualties to which wheat is exposed, and it is a strong reason in favor of high farming.

THE WHEAT MIDGE.

EDS. CO. GENT.—In your issue of June 21, I see the following note from J. JOHNSON, under date of June 11: "The wheat midge is very numerous, and prepared to deposit the nits. They are all of seven days earlier than last year." In the same number, on page 394, Olcott's Yale Lecture Report on the cultivation of the cereals, by JOSEPH HARRIS, we read: "If we could get wheat into bloom ten days earlier, we could escape that terrible insect pest, the midge."

The latter seems to have been the prevailing sentiment relative to the means of saving the wheat crop from insect depredations. But I have doubted its correctness. Insects which destroy our fruits or grains have a wonderful instinct as to the time their work is to be done.

I have in my orchard several different kinds of

apple trees; among them is the *Northern Spy*, a tree which is some eight or ten days later in putting forth its leaves than any other in my collection. Now I have observed that the apple-tree worm hatches just about as many days later on this tree as it is later than the others in putting forth its leaves. Nature thus provides against starvation, by withholding from life until food is provided to sustain that life.

So with the striped bugs which infest our vines. Their appearance is earlier or later, as an early or later season has prepared their appropriate food.

A similar law governs in the production of all our insect tribes. They have their appointed commissions to fulfil, and they will be sure to come at the right time to do their work. If we cheat them once or twice by stealing the march on them, they will be sure to wake up early enough for us next time, and perchance they will come down upon us with double fury for their previous loss.

Is it not so with the midge? For several years Mr. JOHNSON, and some others, perhaps, about Geneva, have been trying to cheat the midge, by producing earlier kinds of wheat. And what is the result? Why, this year "the midge appeared full seven days earlier than last year." And if they can get a grain ten days earlier than an which they can now raise, they will find this insect wake to life early enough to do his work in its appointed time. I am confident, Messrs. Editors, that some other plan must be adopted to save the wheat crop from the midge than that proposed by M. HARRIS in his New-Haven lecture. What that plan is, it is not the object of this paper to suggest.—W. RAYMOND, *Clinton, N. Y., June 29.*—*County Gentleman.*

REMARKS.—It is doubtless true, as Mr. RAYMOND remarks, that the appearance of insects "is early or later, as an early or later season has prepared their appropriate food." If the "season" is ear the insects will be hatched out early; and if it late, the insects will be late also. The same cause which give us an early season would also advance the appearance of the insects. But this does not affect our statement that if we could get wheat which came into bloom ten days earlier than the "season" would naturally produce it, we should escape the midge. The midge would make its appearance in season; but the wheat would be ten days ahead of the season, and consequently ten days ahead of the midge also.

The fact that the midge appeared at Geneva this year "full seven days earlier than last year," is due not to Mr. JOHNSON'S efforts to get early kinds of wheat, but to the fact that our season this year was much earlier than last. The weather during the month of May this year was, on the average, nearly six degrees (5.7°) hotter than in any May during the previous twenty-three years;* and the aver

* See "Notes on the Weather," in the July number of the *Genesee Farmer*, page 222.

temperature of the first fifteen days of June, this year, was four degrees higher than in 1859.

Under such circumstances, it is easy to understand why the midge appeared seven days earlier in 1860 than in 1859. We cannot suppose for a moment that the midge maggots, lying in the earth in the spring, can tell whether the farmer has sown an early or a late variety of wheat, and so regulate the time when they shall change into pupæ, and gain into insects. The time of their transformations is determined by natural causes which are entirely disconnected with the variety of the wheat sown. Except when wheat is sown after wheat, the midge insects do not arise out of the soil on which the wheat is sown; and how they are to tell whether *Mediterranean* or *Soules* wheat is growing in a distant field, we are at a loss to conceive.

The fact mentioned in regard to the *Northern* apple, though an interesting one if true, has no bearing on the question under consideration. The worms are hatched *on the tree itself*—not in the earth, as in the case of the wheat midge. If the hatching is later, the worms may hatch out later. The midge, also, would doubtless undergo its transformations earlier in a warm, early soil, than in a cold, late one.

We see no reason to change our opinion on this subject. It does not rest on mere speculation. The early varieties of wheat are more exempt from the midge than the later kinds. This is an admitted fact. We have seen part of a field of wheat that was a few days earlier than the rest, escape the midge, while that which was later was materially injured. The time of the appearance of the midge is determined by temperature and other natural causes; and if we can get wheat ten days earlier to bloom without disturbing these causes, the wheat would escape, as it would be beyond the reach of the midge before the flies made their appearance.

IS IT BEST TO HILL CORN?—B. R. DARNELL, of the Spring Co., Ky., says: I answer it is. Your correspondents do not say what sort of tools they use. I hill mine with a double shovel. I could do my work on my thirty acres of corn, and hill it with a double shovel. I can do as much with Roaney and double shovel, as two men with hoes; the shovel will hill twenty degrees, and in plowing four times, twice in a week, it will be sufficiently hilled. We raise some corn here, but those twenty-two ears of Egyptian corn—they are ahead of PATRICK SCOTT'S—his corn only had thirteen large ears and a gourd on top with a quart of shelled corn in it.

ENGLISH AGRICULTURE.

LUTHER H. TUCKER, Esq., of the *Country Gentleman*, who spent last summer in Europe, has published a pamphlet of about sixty pages, entitled "*American Glimpses of Agriculture in Great Britain*," which we have read with much pleasure. Several pages are devoted to the consideration of the causes of the acknowledged superiority of English and Scotch agriculture. Prominent among them Mr. T. mentions 1, abundant capital and compact population; 2, a decided national proclivity for the country and for rural pursuits—a taste so strongly marked and so effective that M. DE LAVERGNE, the author of a French work on English agriculture, has not hesitated to pronounce it "*the chief cause of her agricultural wealth*." Agriculture is fashionable. "We are slow," writes ALDERMAN MECH, "to give up our predilection for land as an *honorable qualification*. A man may be a millionaire in mills, machinery, consols or shipping; his mind may be gigantic in learning or science; but, unless wedded to a certain acreage of cold clay or hard gravel, vain must be his aspirations to a legislative seat in St. Stevens." The "gentry" not only put their country residences after their names in the official publications, instead of their town addresses, as LAVERGNE remarks, but it is in the country that they are most at home. "Show and splendor," he continues, "are reserved for the country. Town work pays for the luxury of the country. * * * Just as elsewhere great attention is paid to the handsome parts of large cities, so in England it is the country from which everything that may offend the eye is removed, that the mind may have only peace and contentment to dwell upon."

"There can be no doubt," says Mr. T., "that efforts in the advancement of agriculture are more highly appreciated in England than anywhere else. It was the voice of England that gave LIEBIG his early fame. Popular testimonials are an almost every-day affair to those who have been effective laborers in the good cause, to such men as LAWES and MECH, to the conductors of long established agricultural journals, to prominent breeders and farmers. The names of HOPE of Fenton-Barns, HUDSON of Castle-Acre, and their compeers, are as widely known as belonging to earnest and successful farmers, as those of many men of political eminence. JONAS WEBB, of Brabraham, was born in very humble circumstances, unless I was misinformed, but he became first a thorough farmer, and then elevated himself to the South Down champi

onship, and such men as the Duke of Richmond have assisted at his annual dinners. Indeed, there are not wanting those ungenerous enough in supplying motives for the actions of their neighbors, to accuse some men of wealth of having taken up agricultural pursuits as a simple, though often exceedingly costly way of acquiring associations, which, in England, money alone can not buy. Mr. MEOU, for example, the widely advertised vendor of razors and razor-strops; Mr. MEOU, the influential alderman, might have gone down to the grave with other dealers in fancy wares and consumers of turtle soup; but Mr. MEOU, the farmer of Tiptree Hall, is invited to Sir ROBERT PEEL'S with 'lords of high degree,' and comes to be looked upon, as he mournfully says himself, in bewailing, perhaps somewhat ironically, the responsibilities and 'miserics' of the position, in the light of a 'public improver.'"

The third reason mentioned is the comparatively small area of land suitable for agricultural purposes, and the necessity of increasing its productiveness to supply the yearly increasing population.

There are few—indeed, scarcely any—farmers in England who own the land they cultivate. Farmers of capital prefer to *rent* a large farm to owning a small one. The rent received by the landowner is not more, as a general rule, than from $2\frac{1}{2}$ to 3 per cent. a year on its money value. The average annual rent of farming lands is about \$6 per acre. "The cheapest lands," says Mr. T., "are the wilds of Northern Scotland, generally let, I was told, in tracts according to the number of sheep they will carry, at so much per head for the sheep. Then we progress to farms in different localities and of different value, from two dollars and a half per acre in the north, Cumberland and Westmoreland, to \$3.75 in some parts of the south, Sussex, Surrey and Hampshire,—\$7.50 in all the central counties, with \$10, or even \$12 and \$15 for the best,—from \$10 to \$20 in the Lothians, and almost fabulous sums for the rich irrigated meadows near Edinboro', which are bid off annually at auction, mainly to the city milkmen, at from \$100 to \$150, and even still higher rates for each acre."

English farmers perform little manual labor themselves. Mr. T. says: "I found them expecting, as a general thing, to make a circuit of their holdings once or twice a day, giving directions, if necessary, letting the men feel that the master's eye may at any time detect the laggard, and ascertaining whether the soil or crop is suitable for the particular operations put down for the day's work,

in order that any requisite change of programme may be made. In Scotland, the farmers work more themselves, I think; but in England they live independently, not seeking the companionship of gentlemen of leisure, nor affecting their habits, but mindful of their own affairs, attentive to the stranger who is furnished with a proper introduction; and, so far as my observation went, entirely free from those proverbial peculiarities, which, as manifested by many English travelers, have given the whole nation something of that repute with others which should properly belong to a very small class among them, and which may be more nearly characterized by their own word 'snobbery,' than by any other. The farmers enjoy out-door sports where they can; if the 'two ends won't meet' one year, have capital enough to carry them on to the next; love to grumble, just the least bit in the world, about the weather and prospects, like the farmers of *every country but our own*, and, to succeed in the midst of the competition about them had need to be active and wide awake."

Mr. TUCKER'S descriptions of individual farms he visited are very interesting. We make a few extracts from his account of the "home farm" of THOMA CRISP of Butley Abbey, Suffolk, which contain about 1,000 acres. Mr. C. holds two other farms in the vicinity of nearly equal extent—or a total of some 3,000 acres:

"Of the home farm, about 230 acres were wheat, 150 to 180 in turnips, 150 in barley, 150 'layer' or clovers and grass, together with bear peas, etc., while of the remainder a part is permanent marsh pasture, and the rest lies in open she-walks. The latter are generally blowing sand with not much herbage except the furze (gorse-whins, as it is also called), which serves probably to lessen or obviate the action of the wind. The bushes of this furze are eaten off by the sheep which nibble away at the outer shoots until the in the centre grow up beyond their reach, perhaps four or five feet high; it is nutritious, and other animals are said also to be fond of it. But the spines of the foliage are sharp, and require to be bruised before they can be eaten by cattle with any comfort, and the sheep must have become w toughened to them, one would think, to enjoy them. Of these moors the furze is the natural produce but I believe it is sometimes grown for fodd while machines for bruising it are catalogued by the dealers. During the day the sheep stray about these unenclosed tracts, and with the aid of dogs, the shepherd collects them at evening to be folded. We went out at dusk for a walk over the farm, and saw a flock coming in, unless my memory is at fault, numbering *sixteen hundred* or thereabouts, and I was told that it is rarely the case of collecting even so many as this, that the dogs and shepherd leave behind a single one.

The sheep of this part of England are prod-

mothers, and good milkers, and the females are consequently in demand. Mr. Cmsp has a herd of about 2,000 breeding ewes, to which he puts a Leicester or South Down tup. The lambs it is his practice to sell, the autumn after they are one year old, or indeed at any time during that season, according to circumstances, and the price received for them varies with age and quality, from \$7.50 all the way up to \$15 per head. The lambs are dropped about March, and when they are ready to wean after harvest, are put out upon the stubbles to eat the 'seeds' that were sown in the spring, and at night perhaps folded upon a turnip field, as soon as the latter is ready. But Mr. C. keeps a great many sheep out a-boarding, as we might express it; that is, there are many smaller farmers who do not have the means of keeping a large flock the year round, and who are glad to take in those of their neighbors both upon their stubbles and to eat their turnips. For lambs thus sent out on stubbles on other farms, about three cents per head per week is paid. The price for turnip land is in the neighborhood of six cents a week for each head, though it varies with the character of the crop, etc.; when it does not exceed this price, Mr. C. considers that there is room for profit to the owner of the sheep. Sometimes he has flocks at a distance of fifty miles or even more, and a great advantage of this method to the small farmer, arises from the fact that while the few sheep he would want to keep might be all winter in eating his turnips off, if he can get five or six hundred on to his fields at once, they are all cleared by Christmas and ready for plowing.

We walked through a field which produced a crop of wheat last year. Mr. C. had also obtained from it what is called a stubble or 'stolen crop' of turnips,—seeds drilled in rows eighteen inches apart as soon as possible after harvest, and the roots folded off this spring. He calculates the value of such a crop at about \$7.50 per acre; for a fair yield will keep twenty sheep six weeks—an equivalent at the rate paid for turnips elsewhere to \$7.20, while their manure upon the land is rated as worth about three hundred weight of guano—more, probably, than the cost of sowing and cultivation. The latter consists in the use of Garrett's horse hoe five or six times, according to the necessity of the case, and in one thinning and hoeing by hand, followed by a forking off of the weeds, costing about fifty cents to the acre. This spring, after the turnips had been fed off, the field was scarified and plowed. Beets were sown about the first of May, after a manuring of from eight to twelve loads of farm yard dung per acre,—the sheep folds having furnished the additional fertilizing material, which, without their intervention, would have been purchased in the shape of artificials.

We have thus seen two crops in the system of rotation, the wheat and beets, with an extra bite of turnips for the sheep intercalated. On land where the last is not taken, the second year's crop would be turnips instead of beets. In either case, the roots are folded off along from autumn until spring, or otherwise harvested—the mangolds bearing the frost better, and lasting later in the season than the turnips.

Sometime in March of the third year, the land is scarified for barley, with additional manure, if

the sheep have not already supplied enough. Mr. Cmsp drills in six to eight pecks per acre, and sows also twelve to fourteen or sixteen lbs. of 'small seeds,' with rye grass, pretty much in the following proportion:

8 lbs. red clover,	2 lbs. white clover,
4 lbs. trefoil,	1 to 2 pecks rye grass.

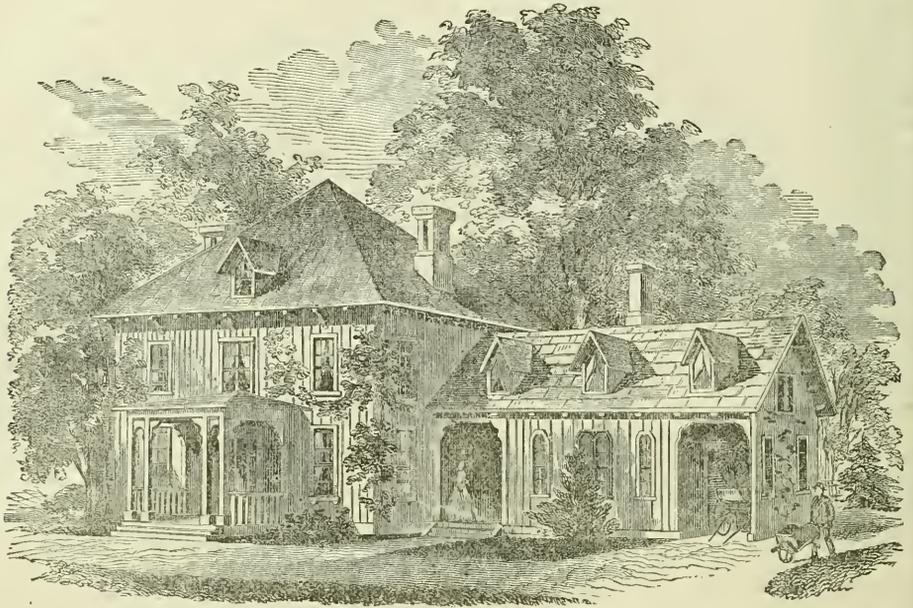
The trefoil, or yellow clover as it is also called, is considered very valuable for sheep. If this 'layer crop' is far enough advanced in autumn, it is fed off that season a little; the next spring, at any rate, it is ready either for grazing, or to come on for hay, yielding of the latter an average of about two tons per acre, thus completing the rotation, as we have before seen it, in the ordinary 'four-course shift.' In October the land is plowed, or earlier if necessary, having previously received a coating of manure. Wheat is then sown, coming forward as the first crop in the succeeding quadrennial series.

Mr. Torr's farm in Lincolnshire, a well known breeder of Short-horns, contains about 2,100 acres—500 acres of which are in permanent grass, 500 wheat, 250 barley, 100 oats, 415 roots, and 335 seeds, (clover, etc.) In 1858 the wheat crop was a very good one, and averaged throughout this large surface nearly forty bushels per acre; Mr. T. estimates his average, bad years with good, not far below this figure—perhaps at thirty-six to thirty-eight, while he considers the average of all Lincolnshire as varying from thirty to thirty-two. Two adjoining fields of his best wheat, aggregating sixty-seven acres, averaged, all through, full forty-eight bushels, and of barley, there were twenty-eight acres which produced 183 quarters, that is six and a half (fifty-two bushels) to each.

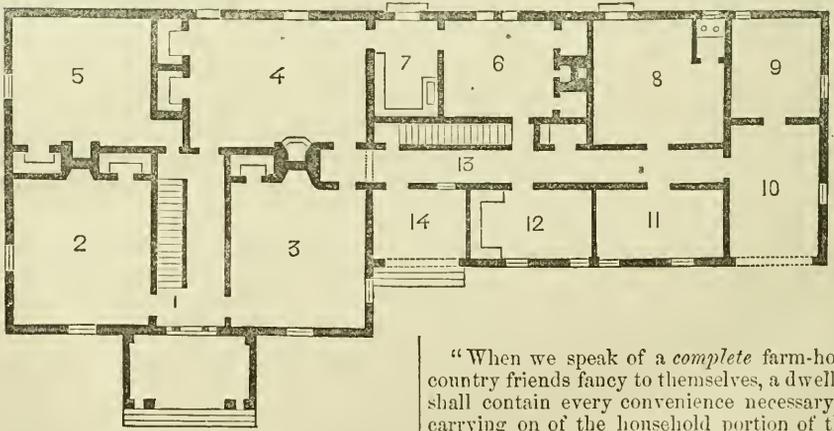
Mr. T. annually shears about 2,000 sheep; but they did not comprise his whole flock at the time of Mr. Tucker's visit, as it then included about a thousand breeding ewes, the same number each of yearlings and of lambs, and perhaps a hundred tups.

Last year Mr. Torr paid about \$10,000 for artificial manures. He is an advocate for deep drainage, and considers "the introduction of *deep* drainage one of the greatest agricultural improvements the last few years have seen." He has 300 acres of fen land drained four feet deep, at a cost of about \$25 per acre. This drained fen land produces immense crops of wheat; 200 lbs. of salt per acre is sometimes applied for the purpose of strengthening the straw.

CURE FOR THE SCRATCHES.—Take fresh slaked lime, and dust the affected parts well with it, twice a day. It will not cause the horse any uneasiness, and will be sure to effect a cure in a few days.—*Maine Farmer.*



DESIGN FOR A COMPLETE FARM-HOUSE.



DESIGN FOR A COMPLETE FARM-HOUSE.

We present the reader, to-day, with another of the natural (and truthful, because natural,) designs of our accomplished artist, Mr. G. E. HARNEY. What we mean by *natural*, is, that the artist so mingles the work of his own hands with the works of nature, making the blending so graceful and harmonious, that a true taste is never offended by its contemplation. Indeed, his pictures look as though they *grew*, rather than that they were made!

Mr. HARNEY will be kind enough now to step forward and explain his own beautiful design in his own language.

"When we speak of a *complete* farm-house, our country friends fancy to themselves, a dwelling that shall contain every convenience necessary for the carrying on of the household portion of the farm labor; at least, such is the idea we have of it, and in the composition of the present design, we have endeavored to supply these conveniences.

"There is nothing at all showy about the house either in design or plan; it is a plain, substantial farm-house, nearly square, with a large L on one side—our aim having been to secure convenience even at the expense of ornament—though, we think, after the house has become two or three years old, and brightly flowering vines begin to cover its sides, and trees to throw their shadow upon it, that it will have a cosy, comfortable, home like appearance, quite in contrast with the *shingle palaces* of late so fashionable among us.

"Our plan comprises the following accommodation: No. 1, hall 7 feet 8 inches by 19 feet, opening into No. 2, parlor, 15 feet by 16; No. 5, bed room, 15 feet square; No. 8, living-room, also 11

by 16 feet, opening into a back entry, No. 13, and across it into the kitchen, No. 4, 15 feet by 20; this kitchen contains two large closets and connects with a pantry, No. 7, which measures 7 feet by 10, and is fitted up with a sink and shelves. The next room *en suite* is the back kitchen and wash rooms; it contains two closets, a large oven and boiler, and measures 16 feet by 12; it opens into the back entry, through which we pass to the wood-room, No. 3, 14 feet by 15; No. 10, carriage shed, and No. 9, work-shop. The back entry is 4 feet wide, and contains stairs to the chambers and cellar. On the front, doors open into the dairy, No. 11, 7 feet by 14; the store-room, No. 12, 7 feet by 13, and upon the sheltered porch, No. 14.

"The second floor contains eight chambers, besides bathing-room, dressing-rooms and closets. The attics may be left unfinished.

"CONSTRUCTION.—This house may be built of wood, and covered in the common manner with clapboards.

"The roof of the main house projects $2\frac{1}{2}$ feet, and that of the L, $1\frac{1}{2}$ feet; the cornices are supported in brackets 3 inches thick. The windows and doors, inside and outside, have plain architraves, 5 inches wide.

"Cost, in New England, about \$3,500."

THE AMOUNT OF PLASTER IN CLOVER.

"THE ashes of an acre of red clover have been found, by actual experience, to contain three bushels of plaster or gypsum."—*Ohio Farmer*.

Red clover, when thoroughly dried, contains about 11 per cent. of ash. This ash contains, according to Prof. HORSFORD, 1.06 per cent. of sulphuric acid. A crop of clover, then, that would furnish $2\frac{1}{2}$ tons (5,000 lbs.) of dry hay, would contain 5.0 lbs. of ash, and the ash would contain 5.83 lbs. of sulphuric acid. Plaster or gypsum is sulphate of lime composed of 40 lbs. sulphuric acid and 28 lbs. of lime. So that, if all the sulphuric acid is united with lime, there would be 4.08 lbs. of lime united with the 5.83 lbs. of sulphuric acid, making a total of 9.91 lbs. of sulphate of lime or plaster.—That is to say, instead of an acre of red clover containing three bushels of plaster, a very large crop, $2\frac{1}{2}$ tons of dry hay, would contain somewhat less than 10 lbs. of plaster.

We may add that the English and French chemists give a somewhat higher per centage of sulphuric acid in the ash of red clover than Prof. HORSFORD, but they also give a less per centage of ash, so that the total quantity of plaster in the crop would not be much higher than in the above calculations.

If our friend of the *Ohio Farmer* had said that an acre of red clover contains three *quarts* instead of three bushels of plaster, he would not have been far out of the way.

AN ACRE OF SOIL, ten inches deep, weighs about 3,267,000 lbs.

SETTING FENCE POSTS WITH THE TOP DOWN.—In the January number of the *Genesee Farmer*, our esteemed correspondent, WM. HOWE, stated that, about thirty years ago he split two bar-posts out of a chestnut log. One of these he set with the butt in the ground, the other with the top down. At the end of ten years, the one set butt down was rotted off. It was reset in the same hole, and in six years it was rotted off again. The other post set top down, lasted four years longer, (16 years from setting) when it got split in two and it was then found to be only about two-thirds rotted off. Mr. HOWE mentioned other facts going to prove that posts should be set top-down.

The *New York Observer* copies this article, and asked if any of its readers had tried the experiment. In the *Observer* of July 12, a correspondent replies, "I have tried it for twenty years with the best result. Those set top down remaining perfectly sound when the others were rotted off."

A VISIT TO CANANDAIGUA.

EDS. GENESEE FARMER:—The smartest of New England's villages are beautiful and elaborate in rural decorations, and often display a taste and beauty in modern cottage architecture, and the more ambitious structures—both picturesque and grand. But there is nothing in the vegetable creation of primitive New England—either on its granite hills, stony plains, or narrow intervals—that will compare in the extent and rapidity of its growth with the sylvia and flora of the tertiary limestone formation of Western New York. Here, in a very few years, both fruit and ornamental trees attain an altitude and size they do not there reach in a century; and our shrubbery grows so rampant, that the great objection to Osage Orange hedge here is, that it can not be kept within wholesome limits.

Of all the villages of fair alluvial Western New York, Geneva and Canandaigua perhaps take the palm for convenience and beauty of location, while few other country towns have finer or more æsthetic mansions, gardens, and grounds. It has been said of Canandaigua, that she has, in common with villages of less size and wealth, few cut-stone side-walks. The reason of this is, that she has extensive banks of the best gravel near at hand wherewith to improve her ways, but no stone quarries. But who would object to the high raised, compact gravel side-walk, of ample breadth, well shaded by deciduous trees, because its surface was not a calciferous or mica slate; or what is worse, a blue limestone, which so soon acquires the marble polish—too slippery to safely walk on.

I confess that when I see a costly iron fence, standing on cut-stone base, with side-walk to match, while nothing of arboricultural or floral beauty in the interior grounds is seen to correspond with it, I can not but feel that here, at least, Jack is hardly concealed by the exterior of the gentleman. But Sonnenburg, the suburban Gothic cottage I now visited, was the reverse of all this. Here was a broad,

shaven lawn of many acres, fenced from the road by an open, painted fence, neither high nor forbidding; then the long, circular, well kept, gravelled roadway, from gate to mansion, is shaded by alternate shade and fruit trees. Here are dwarf pears and standards, and dwarf cherry trees now filled with green fruit. Then on one side, nearer the house, is seen long beds of strawberries and bushes of small fruits, that even the feathered songsters make it their paradise, and here feed without stint or fear; for at Canandaigua, the fruits of the earth are in such variety and excess during the season, that no one fences against biped depredation, and the birds are welcomed *con amore*. It is said here, that there is hardly an Irishman so poor as not to own a small fee simple whereon to plant fruit trees and vines, and make a garden; in fact, his very nature seems changed here by force of the example set him—not only by his wealthy magnate employers, but by the constant, well directed, tidy industry of the people generally—so that the pig in the shanty and the puddle before the door, is no longer the Celtic badge in Canandaigua.

But *à propos* of Sonenburg and its new and matchless improvements: here is no wilderness of flowers, but roses enough, and here and there on the border a few graceful lilies—presiding like tall Flora in her snowy wreath over her parti-colored family—a cluster of pinks, a bed of choice verbenas, etc. Then, as if to contrast the utile with the dulci, here are broad beds of now ripe strawberries, long rows of raspberries; *Wilson's Albany*, that have stood five years intact, now yielding a delicious crop. The corners are spaded under with coarse manure late in August; but the same treatment on a sandy soil would make too much vine. Sand needs only a little top-dressing, but a heavy calcareous clay needs vegetable matter spaded in, not so much to feed the plant as to give porosity and absorbent power to the soil. Here is yet no cold grapery, but outside grapes in variety and full bearing; and many peach and plum trees—the latter in full and healthy bearing, while peaches were few. But such patches of clover, orchard and Hungarian grass, fields of beets—not turnips—and patches of drilled corn for the bovines and horses, sweet corn for the table, and monstrous asparagus and rhubarb, told that this hard, compact soil was a savor of ammonia, and needed little more than mechanical amendment to make it productive.

On the edge of the lawn lay the house plants in pots, now luxuriating in their translation from the late coal-fire of the room to the outer air and the fructifying dews of heaven. But here let me say, from the result of experiment, that tropical fruit, as well as flowers, may be successfully grown if kept only during cold weather in the house. True, a lemon tree will be dwarfed in the tub, but its fruit will be perfect and even larger than on the fully expanded tropic indigenous tree.

As you approach the mansion of Sonenburg, with its bay windows and Elizabethan gables, look out on the nice broad walk lest you step on some of the eighty-seven young turkeys, which the proprietor—a good churchman, and of course fond of the “comforts of good living”—is rearing for his own table; the hen-turkeys being confined in coops, accounts for the obtuseness of their legionary broods. Here is a house of brick and chiseled

limestone, whose interior finishing is in keeping with its outside perfections. Nice framed engravings next to the barometer greet the eye at the vestibule; then not only the ample hall, but the walls of each room are hung with large oil paintings and superb engravings. Unique shells from the far-off Pacific islands, and articles of *vertu* indigenous and from abroad, fill the mantels and tables, in common with vases of flowers, leaving room only for books and papers.

As “man lives not by bread alone,” I hate to dwell on the suburban fare here. Suffice it to say that the Java was neither medicated with roots, or creamless; the bread had not given up its saccharine to form a baker’s puffy, insipid loaf; the butter contained that aroma which BOUSSINGAULT says no chemist can analyze, and the strawberries had undergone no fermentation in their transit from the garden to the table. The host himself was once a traveler in France and Germany—an importer of German fabrics in Maiden Lane, New York. From a pale, polished citizen, with a poor appetite and worse digestion, he has become, by force of daily exercise in the open air—call it not drudgery—a strong, hirsute man, who, without being either “gluttonous or a wine-bibber,” can now *avale* a quart of strawberries with his tea, with more impunity than he could once eat a saucer full. Then what is still better, his intellectual comforts have been also multiplied, increased, and improved, as his physical man was renovated by air and exercise.

s. w.

A STOCK FARM IN CANADA.

EDS. GENESEE FARMER:—Late in the afternoon of the 13th of June, 1860, I arrived at the residence of a Canadian farmer, whose name is well known as one of the best importers and breeders of improved stock the country can boast of. GEORGE MILLER, Esq., of Markham, C. W., is a plain, honest, hard-working man, who has seen some six summers. Like the late Mr. BATES, of Kirkleavington, he loves to be among his sheep and cattle and knows and treats each individual among them as well as if they were his children. After tea he took me over his farm. He has 1100 acres, 300 of which comprise the home farm under his own immediate supervision—the rest being farmed by tenants under his direction. In the first field I entered were seen depasturing some eighty Leicesters sheep, mostly ewes, with their lambs, and few Cotswolds. It was easy to distinguish at glance the long-bodied, round-baredd Leicesters with their short, slender legs, almost hidden from view, from the gigantic, square-built Cotswold with broad backs of nearly a yard across. There were some choice imported rams among them which had been prize-takers both in England and America. I was surprised to find that, notwithstanding the apparent difference in size between the two picked rams of each breed, the difference in live weight was only about four pounds in favor of the Cotswold.

One imported Leicester ewe was literally rolling with fat, and unable to move about, having had one of her legs injured a few days previously by one of the neighbor’s horses breaking into the field. She cost thirty-four guineas in England. All the animals allowed themselves to be approached

and hauled as they stood in the field. The Leicesters are all directly descended from Bakewell's flock, and the ewes generally produce two lambs each per annum. Mr. MILLER gives them the preference over the Cotswolds, and estimates that he can obtain as much mutton in two years from a certain number of Leicester ewes as he can in three years from the same number of Cotswolds. He thinks they consume less grass than the common sheep, and finds an acre of good grass will keep tea of his sheep throughout the summer. He gives them nothing but pea straw and turnips in winter.

In another field, I saw about 100 more sheep, eight of which were Cotswolds, the rest Leicesters. Adjoining it was a ten-acre field just put into Swedes. A little further on was another ten-acre field being prepared for Kohl-Rabi. Mr. MILLER has imported 100 lbs. of the seed of this plant from Scotland for his own use, and intends to give it a fair trial this season. His method is to sow it very thinly over the land broadcast, and afterward cultivate by hand. His land is in so high a state of cultivation that he finds little difficulty in keeping down the weeds, and his grain crops never average less than 40, and often 50 bushels per acre, and his Swedes 1200 bushels per acre. In the midst of a large field of waving barley stands a small barn. Here he keeps a lot of choice Dorking fowls, imported last year from England. They are splendid birds, and being far removed from the farm-yard or any other building, they can easily be kept fine and shady. Some thirty chickens were to be seen running around the place. These chickens are all so much alike in color and markings, that they can not be distinguished from each other. Mr. MILLER has kept the Dorkings for twenty years past, and has quite a number at the farm-yard. They are remarkably good layers, and unlike the Asiatic breeds of fowl, do not evince a disposition to spend all summer in vain efforts to hatch stones and adled eggs.

Having already written enough for any farmer to read at once in this busy season, I will reserve a description of the Short-horns and Galloway cattle for another letter.

J. MACKELCAN, JR.

WHEAT OF THE SOUTH.

EDS. GENESEE FARMER:—In the July number of the *Farmer*, on page 213, is a communication signed N. S. N., entitled, "Wheat of the South," in which the writer, after giving his theory of vegetation (by the by, his argument is all *theory*), says: "Plants, after vegetation has commenced, require also a certain amount or *quantum* of heat: not any certain duration or continuation thereof;" and, that we may not misunderstand him, adds: "It is plain that a great heat during a short period, must produce the same effect on plants, with a less degree of heat during a longer term." And, to make assurance doubly sure, adds: "It is the amount, not the duration, that is essential to mature plants." Now, if these propositions are unqualifiedly true, then the greater the heat the more rapid the growth; and all that we have to do to increase the growth is to increase the heat, *ad infinitum*, and that one day at 212° (boiling point) would cause vegetation to grow as much as two days at 106°, and so on, at higher or lower

degrees of temperature, which is, to say the least, supremely absurd.

The conclusion at which he arrives is, "that if we want wheat that will ripen *earlier*, it should come from the *North*." Now, as there are different opinions on this important subject, and as the communication of N. S. N. might mislead some, I will give you a chapter on facts—not *theory*.

Last fall, a man of my acquaintance, seeing the subject discussed in the agricultural journal concluded he would test the matter himself. He went from about sixty miles east of north from Pittsburgh, Pa., to Canada West, and purchased a quantity of seed wheat, brought it home, and sowed it at the same time with other native sorts. And now for the result. When the native sorts had shot out and were in bloom, the Canada wheat had not commenced to shoot, and was full two weeks later than the native varieties; and now, when the latter is almost ripe, from every appearance the Canada wheat will be two weeks later ripening. The distance the wheat was brought southward was about two hundred miles.

This *fact*, I claim, is conclusive, and is far more reliable than the *theory* of N. S. N. I have observed for years that wheat brought from eastern to northwestern Pennsylvania—where the harvest is from two to three weeks later—is earlier than the native varieties, or such as have become acclimated. It is known that oats brought from Europe to this country will retain their former characteristics a year or two, but no longer; and from this fact, may we not infer that wheat brought from the north or south will retain only for a season or two their former characteristics of late or early ripening?

N. S. N. further says: "We know that autumn and winter apples become summer and fall fruit further south." But does he not also know that, notwithstanding a warmer climate, summer and fall apples *south* grow and remain upon the trees longer than autumn and winter apples do north?

Pinesstantoney, Pa., July 4, 1860.

J. B. C.

SHOCKING WHEAT IN THE HARVEST FIELD.

BRING seventy-five sheaves together and place them in a circle or ring of about fifteen feet in diameter, with the butts to the centre. Place a good-sized sheaf in the centre of the enclosed space, on the ground, and lay down successive sheaves; elevating the heads, at first by laying them across the first sheaf, and so on around this nucleus until a circular bottom is formed sufficient to receive the quantity of sheaves brought together—always taking care to keep the heads of the sheaves duly elevated until the stack is finished. The bottom should be made of ample size, so as to permit the sheaves to have due space. Otherwise, the centre will be too high and cause the sheaves to tumble off, or the whole to assume a leaning position. It is better, therefore to allow full size, and then to draw the stack to an apex rather suddenly in finishing. This is more especially necessary when the sheaves are large, for it is difficult otherwise to make the top sufficiently pointed.

With the foregoing directions faithfully observed, a man with ordinary judgment may rapidly secure his wheat in the field against all ordinary weather, for a month or more.

R. M. CONKLIN.

NOTES FROM CANADA.

THE WEATHER AND THE CROPS.—The summer, so far, has been unusually cool and pleasant. I have not yet found it necessary to discard the suit I wore every day during the past winter in Rochester. Midsummer day was quite damp and chilly. Northerly winds have prevailed to a greater extent than usual at this time. No more rain has fallen than was just needed, and much of it was accompanied by electrical discharges in the atmosphere. The crops, wherever I have seen them, promise an unprecedented good yield. The midge has appeared in some localities and caused much damage, but not over any great extent of country, and unless it has been at work very unobservedly, has done little damage generally. The winter wheat may be said to be beyond danger; many fields I saw yesterday being nearly ripe. Spring crops are in a very forward state. Hay cutting is now going forward, and the grass is very heavy. Clover was much killed last winter and is thin on the ground. At present the weather is rather showery and uncertain, and much hay is yet out.

INDIAN CORN has been more extensively planted than usual and promises well. Fruit of all kinds abundant. Many who have cut down their peach trees in despair of ever finding them productive again, are now regretting their hastiness, as many of those left are heavily loaded with fruit.

Root crops have been largely planted, and if they turn out only ordinarily good, I do not see where the stock is to come from to consume them.

CANADA THISTLES. It is a noticeable fact, that with the introduction and progress of railways, this pest has become more numerous and troublesome than ever before known. Wherever the subsoil is exposed to the air in making railway cuttings and embankments, the Canada thistle is almost sure to spring up spontaneously, and occupy the ground for some years until the natural grass becomes thick and strong enough to drive it out. As a consequence, it soon spreads over the adjoining fields. Along some portions of the line of the Grand Trunk Railway of Canada, it may be seen growing like a forest, so close up to the rails as to impede the view from the car windows. The only reliable way of keeping it in check, is to cut it close to the ground every two or three weeks during the first year of its existence; this prevents its blossoming and spreading at the roots, and if persevered in will usually eradicate it the first season. The law authorizes the pathmasters to destroy all weeds and noxious plants along highways, and this ought also to be done on railways at the expense of the company; but, unfortunately, it is not put in force, and thus a great evil is tolerated till it will become too late to remedy it.

WINTER BARLEY. This crop is now being successfully grown in Canada. I saw a field of it near Hamilton harvested and shocked on the 7th July. A farmer, who has grown it both here and in England, thinks it more certain and profitable than spring barley. His plan is to plow a clean wheat stubble, rather shallow, immediately after harvest; harrow it, and let it remain till the weeds in the soil have grown up; then manure it heavily, spread the manure and plow it in about six or seven inches deep during the middle of September, ridging it up

into lands twelve to eighteen feet wide, and sow and harrow in the seed during the first week of October, not earlier; $2\frac{1}{2}$ bushels of seed per acre is sufficient. He thinks when put in in this way, it is less liable to suffer from winter-kill than full wheat, and it can be harvested early enough the next season to put in a crop of late turnips on the stubble, thus obtaining three crops in two years.

WINTER WHEAT. It is now generally conceded that the wheat most liable to winter-kill is that which has been lightly covered in. Where a grain drill is used, the wheat can resist the effects of frost during open winters, and is rarely killed out except where the soil is badly drained, or retains moisture on the surface.

A farmer near Dundas has been experimenting on wheat for twenty years in the following manner: He prepares the land as usual up to the time of applying the manure; the manure is spread on the surface early in September, the wheat sown on the manure immediately and both harrowed. This done, he plows under the wheat and manure together and leaves the land rough without harrowing. He says the wheat so put in has invariably yielded one-third more crop than that he puts in, in the ordinary manner the same year, and that although it takes a longer time to make its appearance, it is never winter-killed, nor is it later in ripening. He says the practice of plowing in wheat is very general in that part of England from whence he came.

HOW TO FORETELL THE SEX OF THE YOUNG OF NEAT CATTLE. An old farmer and noted breeder of stock, gives it as the result of the observation of his lifetime, that a cow put to the bull soon after she is milked, will almost invariably produce a male calf, but if she is not milked for twenty four hours previously, she will, in nine cases out of ten, produce a female calf. If this rule should prove good, it may be useful. This is an old idea, but we believe there is no truth in it. [Eds.]

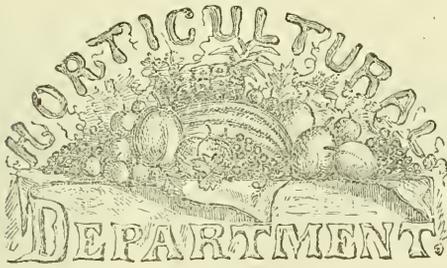
COVERING TURNIPS IN WINTER. Place them in long piles on the surface, and instead of covering with straw use green pine boughs put on pretty thickly butt ends up. They will keep out the rain and frost, need but little earth over them, and not decay, nor impart a musty taste to the turnips.

Hamilton, C. W., July 12, 1860.

J. MACKELCAN, Jr.

GRINDING CORN TOO FINE.—I notice in the April number of the *Genesee Farmer* an article on bread-stuffs, from J. T. BRONDGEEST. Now, I think he can not understand the subject, or I do not. He seems to carry the idea that *white corn* ground fine, is equal to wheat flour. Any man of science knows that there is more grain ground too much than too little, and corn in particular. It spoils the sweet corn flavor to be ground too much; and by grinding fine it does not make wheaten flour.—L. W., *Ellery, N. Y.*

BIG CALVES.—A correspondent of the *Ohio Cultivator* stated that he had a calf which weighed, when one year old, 800 lbs. Another correspondent, in reply, says he has a calf which weighed 168 lbs. when three weeks and three days old; and he has a neighbor who has a calf which weighed, when nine months and twenty days old, 804 lbs.



GENESEE VALLEY HORTICULTURAL SOCIETY.

This Society held an exhibition in this city at Corinthian Hall, on Friday, June 22d.

The display of fruits and flowers was pronounced the most magnificent ever made here at this season of the year.

Large collections of Roses were presented by Messrs. ELLWANGER & BARRY, A. FROST & Co., J. DONNELLAN & Co., and C. W. SEELYE.

Fine specimens of plants in pots were exhibited by S. MATHEWS, Esq., and ELLWANGER & BARRY.

Messrs. ELLWANGER & BARRY, HOOKER, FARLEY & Co., H. E. HOOKER & Co., C. W. SEELYE, and A. FROST & Co., presented extensive collections of Strawberries.

ELLWANGER & BARRY and A. FROST & Co. made most magnificent displays of Cut Flowers of Herbaceous Plants.

Besides the above were a great number of interesting but smaller entries.

A large quantity of boquets were in competition, and well grown specimens of Grapes in pots were presented by S. MATHEWS and A. FROST & Co.

Mr. W. H. BARTON presented a dozen bottles of his *Isabella* wine, which he has branded *Port Genesee*, and for which he has already acquired quite a reputation.

Although the Committee did not examine this article—as no premium was offered for it at this exhibition—we can say from personal judgment that it is a very superior article. Mr. B. says, as soon as it has sufficient age it will be brought into market in competition with any foreign importations, and especially with all *pure native* wines manufactured in the United States.

The prize offered for the best six pot plants was awarded to S. MATHEWS, Esq. Among them were beautiful plants of *Clerodendron fragrans*, *Stephanotis florabunda*, *Ixora florabunda*, and *Begonia rex*.

TABLE BOQUETS.—The 1st prize was awarded to A. FROST & Co.; 2d, to C. W. SEELYE.

HAND BOQUETS.—First prize to A. FROST & Co.; 2d, ELLWANGER & BARRY.

HAND BOQUETS, made from flowers grown in open ground.—The prize for these was awarded to C. J. MILLS & Co.

HANGING BASKETS.—First prize, Mrs. Dr. RIPLEY; 2d, C. J. RYAN & Co.

HERBACEOUS PLANTS.—Best collection, ELLWANGER & BARRY; 2d best, A. FROST & Co

ROSES.—Best collection, ELLWANGER & BARRY; 2d best collection, A. FROST & Co. Best 25 varieties, ELLWANGER & BARRY. Best 12 varieties, A. FROST & Co. Best 6 Moss, A. FROST & Co.

The Committee say, "The collections of roses shown by our nurserymen were large and fine—never before equalled at any similar exhibition in this city. * * * A very fine collection of seedling *Antirrhinums* was shown by W. S. GOLDSMITH, worthy of special commendation. A pot of the much talked of *Spergula pilifera* was shown by Mr. CRAIB, gardener to S. MATHEWS, and attracted deserved attention."

STRAWBERRIES.—Best collection, ELLWANGER & BARRY; 2d best, HOOKER, FARLEY & Co. Best 6 varieties, ELLWANGER & BARRY, for *Wilson's Albany*, *Trollope's Victoria*, *Triomphe de Gand*, *Scott's Seedling*, *Brighton Pine*, and *Genesee*. Best dish of Strawberries, H. E. HOOKER & Co., for *Triomphe de Gand*.

CHERRIES.—Best collection, ELLWANGER & BARRY; 2d best, A. FROST & Co. Best quart of Cherries, A. FROST & Co., for *Coe's Transparent*.

EXOTIC GRAPES.—Best three bunches, S. MATHEWS, for *Black Hamburg*. Best specimen exotic Grapes in pots, S. MATHEWS.

BEETS.—Best six, GEO. COOPER.

LETTUCE.—Best six heads, C. F. CROSMAN.

RADISHES.—Best three bunches, GEO. COOPER.

CUCUMBERS.—Best three specimens, THOS. MCGILL.

ONIONS.—Best three bunches, GEO. COOPER.

In the evening, the Hall was thronged with visitors, and until a late hour; and good music, luscious ripe strawberries, and ice cream, did not have the effect of rapidly dissipating the crowd.

Altogether, this exhibition was one of much interest, much instruction, and a source of most delightful and pure recreation.

LARGE STRAWBERRY.—The editor of the *California Culturist* says: "We saw at Alameda a *British Queen* strawberry, raised by Dr. HAILES, which measured 9½ inches in circumference."

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.

A meeting of this Society was held in the City of Buffalo, on the 27th and 28th days of June last.

On account of the sickness of the President, BENJAMIN HODGE, of Buffalo, S. H. AINSWORTH, of Ontario Co., was appointed Chairman of the Session.

The following subjects were taken up and discussed:

STRAWBERRIES.

Which are the best six varieties for market, and the best six for family use, and which the best method of cultivation in each case?

E. HERENDEEN, of Macedon, could recommend but one variety for market, and that was *Wilson's Albany*. It will produce four times as much as most other sorts, and twice as much as any other. It is rather acid, but of a good flavor—one of which the taste never tires. It not only produces a great crop, but uniformly large berries; those of the last picking being almost as large as the first. Cultivates in rows, first setting plants eighteen inches apart in the rows, and the rows four feet apart, and allowing the runners to cover half the ground. Mulch with straw or cut grass.

Prof. CORCOCK, of Buffalo, did not find the Wilson more prolific than some others, and thought it was not fit to eat, being altogether too acid.

Mr. MOODY, of Lockport, said we needed earlier berries than the Wilson. *Jenny Lind* is early, large, productive, and a fine fruit. *Burr's New Pine* is the finest flavored of all. *Peabody* is a good strawberry. *Triomphe de Gand* bears well when grown in hills, but must not be allowed to run into a mass. Recommended as the best six varieties, *Jenny Lind*, *Triomphe de Gand*, *Hooker*, *Trollope's Victoria*, *Monroe Scarlet* and *Wilson*.

C. L. HOAG, of Lockport, was well pleased with *Wilson* and the *Pyramidal Chilian*. *Hooker*, as a family berry, never was excelled, although rather tender. *Pyramidal Chilian* next to this, almost as productive as *Wilson*. *Wilson* is of fair quality when fully ripe. Never cultivated except to destroy the weeds, as deep stirring of the soil near the roots is apt to injure them, and injure the crops.

Mr. GLEN, of Rochester, said he "planted *Crimson Cone* upon a space of 16 square rods, (one tenth of an acre,) and the second year picked eleven hundred quarts of berries. They had continued bearing well, and now this fifth year, had already yielded over one thousand quarts. *Wilson's Albany* is an enormous bearer the first year, but afterwards diminishes very much in productiveness. The *Large Early Scarlet* will bear as many quarts as *Wilson's Albany*, and comes first into market, when the price is high, the demand great, and the sales easy, while *Wilson's* ripens mainly in the glut of the market. *Triomphe de Gand* is very productive and very fine. *Hooker* is perhaps somewhat tender in open winters or exposed situations, but it is of unsurpassed high flavor. *Crimson Cone* is very fine and good for preserving. When planted in hills mulching is necessary."

JAMES VICK, of Rochester, coincided with Mr. GLEN as to the productiveness of the *Crimson Cone*. A few years since this was almost the only variety grown for the New York market, and several growers in Jersey had informed him that it was the only

variety from which they could make money. He believed they were now growing other varieties to some extent. Mr. V. also called attention to the advantage of growing strawberries in hills, stating that a plant, if kept shorn of its runners, would become very large by side shoots from the crown, and would throw up twenty or thirty fruit stalks, bearing eight or ten good berries each, thus giving a couple of hundred to each plant.

Mr. GLEN had grown strawberries in this way, and had counted thirty clusters of fruit from a single plant, but did not think this the most profitable mode of culture.

Prof. CORCOCK said there were some advantages and some disadvantages in the hill system. The principal disadvantage was, that where a portion of the plants is killed by the frost, it makes a great vacancy, while if grown in a mass it would not be noticed.

C. L. HOAG said the *Hooker* was very productive when grown in hills. Had seen it give as large a crop as *Wilson's Albany*. The *Pyramidal Chilian* is the hardiest of all varieties.

CHAS. DOWNING, of Newburgh, being asked to express his opinion on the question, said he regarded *Wilson's Albany* as the most productive variety, but had a great dislike to its flavor, and would not grow it. *Jenny Lind* is a fine early sort. *Triomphe de Gand* was his favorite. *Trollope's Victoria* was of good quality, but not productive. *Hooker* is a superior berry but not productive enough to satisfy the demands of some. *Scott's Seedling* is a fair bearer, but of poor flavor. Was cultivating a new variety from Canada called *Ladies Pine*, in flavor like *Burr's New Pine*, and moderately productive.

Mr. BEADLE, of Canada, knew nothing about cultivating for market, and could only give his experience in growing for family use. His preferences were the *Large Early Scarlet*, *Hovey's Seedling*, which does well and gives a few large berries on each truss, the root being of moderate size, *Burr's New Pine*, the best strawberry, and tolerably productive. The rival of it in flavor is *Triomphe de Gand*. *Hooker*, bears large berries and fine crops, with few small berries on the truss. Some say *Hooker* is tender. With us in Canada all strawberries are tender. When covered with leaves all are safe. *Wilson* best for productiveness, but of poor flavor. Was testing *Triomphe de Gand*, and it promised very favorably. *Victoria* looked as though it would prove a shy bearer.

Mr. DOWNING said the *Wilson* died out after producing one crop.

Mr. GLEN said this was his experience.

Prof. CORCOCK being inquired of as to the manner and time of planting, said he planted any time when he could obtain plants and the soil was in order. Take up the plants, and clip off two-thirds of the tops and one-third of the roots. Then mulch the roots and plant. Immediately after planting, throw two or three quarts of fresh tanbark over the plant, burying it. In a little while the plant will appear above the tan, healthy and vigorous. Just before winter, gave a covering of tan, as a winter protection, using about a peck to ten plants. If plants were put out in the autumn, obtained about half a crop the first season.

CHERRIES.

What are the best six varieties of cherry for family use, and also for market purposes?

Mr. DOWNING was called upon for his opinion, when he remarked that Coe's Transparent was an excellent Cherry for family use. Belle de Choisy was better, but a poor bearer. May Duke was one of the best for market. He would also recommend Great Bigarreau and Kirtland's Mary, and would speak well of Gov. Wood, but it is so liable to rot. Early Richmond is a very useful cherry. Early prolific is a good early Cherry, and a great bearer. Ripens with Belle d' Orleans.

Prof. COPPOCK recommended for market Black Tartarian, Yellow Spanish, Elton, May Duke, Coe's Transparent, and Black Eagle.

C. P. BISSELL, of Rochester, thought well of the Early purple Guigne, Coe's Transparent, and Belle de Choisy.

Mr. MOODY had only one Early Purple Guigne tree. Had kept an account of the fruit sold from it the last three years, and it amounted to \$11. The birds eat all of the Bauman's May, but do not trouble Early purple much. Black Tartarian does first rate, but Coe's Transparent is of much better quality. Belle de Choisy is the best of the Cherries. His children never picked anything else when it was ripe. Knight's Early Black is a good sort.

C. L. HOAG wished to call attention to an old and neglected variety, the American Black Heart. It was always fair and perfect—never wormy, and was selected by visitors, and purchased, in preference to any other Black Cherry he cultivated. It bears remarkably well every season. Had a tree 40 years old now giving large crops. An inferior sort had been sold under this name.

Mr. FROST, of Rochester, remarked that Coe's Transparent, at the Genesee Valley Horticultural Society, took the first premium for the best quart. Mr. F. thought that Belle de Choisy was one of our best desert cherries, and when the tree obtains age it bears well; but as for cultivation, Mr. FROST spoke very strongly in favor of trees on the Mahaleb stock. Dwarfed in this way they are far harder than as standards, and are particularly desirable in the vicissitudes of our climate at the west. The tree is more bushy and in form much preferable, while the fruit can be much easier gathered, and is actually much larger and finer than on standards. Besides this the trees bear fruit earlier, and for small gardens the Duke and Morello varieties are particularly desirable on Mahaleb stock.

Mr. TOWNSEND would mention one variety not generally known, but much esteemed in the neighborhood of Lockport—the Townsend Cherry, a seedling raised by the speaker. It is very early—had picked it the 7th of June. Always produces a crop. Liked the Black Tartarian, Elton, May Duke, Brockport Bigarreau, Downer's Late. Purple Guigne was always destroyed by birds, and Belle de Choisy never produces a crop.

Mr. GLEN recommended Belle de Orleans, Gov. Wood, Coe's Transparent, May Duke, Early Richmond, Downer's Late. To this six he would add one or two others, to fill up the season.

Mr. DOWNING thought well of Vail's August Duke, one of the most promising of the new

Cherries. Something like May Duke, but several weeks earlier. A seedling of Mr. VAIL, of Troy. * Mr. BEADLE lived in a cold country. (Canada,) where the Heart and Bigarreau Cherries did not succeed, but where the Dukes and Morellos flourished very well. Could grow May Duke. E. Richmond and Reine Hortense, and a few others. Would like a list of Dukes and Morellos that it is best to plant.

Mr. DOWNING recommended, in addition to those mentioned by Mr. B., Late Duke, Royal Duke, Plumstone Morello, and Vail's August Duke.

Mr. HOAG recommended as the best six, Early Purple, Gov. Wood, Townsend's Seedling, Black Tartarian, Rockport Bigarreau, Old American Black Heart.

Mr. TOWNSEND said cherries should be grown on land of only moderate fertility, and it is not best to cultivate too highly. Trees grown on Mahaleb stocks are harder than on Mazzard, and much less likely to be injured in winter. They commence bearing at three years old. The size and quality of the fruit was much better on Mahaleb stock.

Mr. DOWNING thought the Mahaleb one of the best stocks that could be used.

RASPBERRIES.

What are the best varieties for market, and which the best for family use,—hardiness and productiveness considered?

CHAS. DOWNING recommended Brinckle's Orange for family use; for market, the Hudson River Antwerp.

Mr. TOWNSEND considered Brinckle's Orange too tender.

Mr. DOWNING considered it quite hardy, but all Raspberries should be laid down in the winter. This is the practice with all growers for market around New York.

Mr. VICK said he had received letters from the West stating that the Orange was the hardiest of all the cultivated Raspberries.

Mr. FISH said all the varieties he cultivated killed back, except the Black Raspberry, which was the only one he considered worthy of cultivation.

Mr. GLEN wished to add the Fastolf to those recommended by Mr. DOWNING.

Mr. DOWNING said it was good, but would not bear carriage, being too soft and tender.

Mr. HOAG had a good number of varieties, and they were all killed back, the Orange with the rest, but if it receives the slightest protection from the winds, even by the trees, it is safe.

The Black Cap was spoken well of by several members and recommended.

Mr. FROST had grown several of the Ever-bearing varieties, but had not given them much attention; perhaps, not as much as they deserved. The Catawissa, he thought, the best. It gave a good crop in the summer, and a crop again in the fall, continuing until October.

Mr. DOWNING inquired if the berries were perfect; with him they were very imperfect.

Mr. FROST said some imperfect berries were produced, but it gives a good crop of perfect fruit. To get a good crop, the old canes must be cut out, and the fruit obtained from the present year's shoots.

H. T. BROOKS knew nothing of the ever-bearing sorts, but he had a never-bearing variety.

Mr. GLENN thought well of the Doolittle Black Raspberry. Cultivated between two and three

acres. They will sell well and ship any distance. They are larger, and not quite so seedy as the common Black Cap.

Mr. PECK, of Bloomfield, grew Black Cap from the woods, and could not tell the fruit from Doolittle's Improved.

Mr. DOWNING called attention to Vice-President French—a week later than most of the Raspberries. A fine large berry; plant vigorous and productive.

CURRENTS.

Which are the best varieties, both for market and family use?

Mr. MOODY thought most of the White Grape Currant. It was large, and not so acid as many others, and hangs on the bushes well. Had them last season until the first of October. The Cherry Currant is about the same size, and an enormous bearer.

Mr. DOWNING said there was but very little difference in the fruit between White Grape and White Dutch. There was considerable difference in the leaves and habit of the plant. There was a new currant, said to be twice as large as White Dutch. Versailles is a most desirable currant, the best of the new ones. The berry is as large as Cherry, and the bunches longer.

Mr. FROST said the Versailles was much grown, and was very popular around Boston. The berries were large, the bunches long, and the fruit very easily gathered.

GOOSEBERRIES.

Mr. FROST was cultivating, in addition to many English sorts, the American Seedling and Houghton's Seedling. The American is the most upright in growth, and is considered the best around Cincinnati and at some other places.

Mr. DOWNING said the American Seedling was known by different names in different localities. Mr. D. said, in answer to an inquiry, that Downing's Seedling was an improvement on Houghton's Seedling, a very fair berry, but like all new things had been over praised.

Mr. HOAG thought pretty well of the Mountain Seedling. It is very productive, and makes a good vigorous growth, and never mildews.

Some discussion followed as to the best means of preventing mildew of the European varieties, but nothing new was elicited.

PEARS.

What variety or varieties of dwarf pears is it best to plant in an orchard of three acres: at what distance should the trees be planted, and what is the best mode of culture?

Mr. FISH would plant Duchesse d'Angouleme. It is a good grower, bears early enough, and being a large, showy fruit, always commands a high price in the market, but would not plant one variety exclusively. Sometimes one sort fails, and in such a case it is not best to have a total failure. No farmer likes to grow one crop exclusively, on this account. Louise Bonne de Jersey does exceedingly well, and with him the Virgalien did not crack. Would set out equal numbers of Duchesse d'Angouleme, Virgalien, Louis Bonne de Jersey, with some Bartlett's double worked.

Mr. TOWNSEND found that trees were most subject to the blight just as they were coming into bearing, and high culture be thought favorable to the disease. He had suffered very severely—lost hundreds of trees. Noticed that when a vigorous growth was

made one year, trees were subject to attacks from blight the next. Had cultivated between the rows, but proposed to let them go in turf for awhile. Thought Louise Bonne de Jersey the best pear to make money of. After this, Virgalien, Seckel, Beurre Superfin, Bartlett, (double worked,) Tyson and Rostiezer. Would double work Bartlett on White Doyenne.

D. S. MANLEY, of Buffalo, said they could not raise a good Virgalien in that section, neither on a standard nor a dwarf. For early pears would plant Rostiezer and Tyson. Liked Louise Bonne de Jersey, and would pick off fruit so that it be not allowed to bear until five years planted. Duchesse d'Angouleme should be served in the same way. There is not a pear orchard west of Boston cultivated too highly.

Mr. MOODY spoke highly of the Lawrence as a winter pear. It ripened without any trouble, just like apples in the cellar, and was about as good as the Virgalien.

Mr. TOWNSEND remarked that while he had spoken of the blight which had really troubled him, he did not wish to carry the idea that he was discouraged, for with all his losses his balance sheet exhibited a balance on the right side. He obtained a profit of from \$300 to \$500 per acre to land on which he cultivated dwarf pears. No business was more profitable than dwarf pear culture.

The President exhibited the measurement of two pear trees eight years planted, one grown in grass since set out, the other having received ordinary culture, the trunk of the former being four inches and three-eighths in circumference, and the latter two feet nine inches.

After some remarks on grape growing, and the passage of a resolution of sympathy with the President of the Society in his affliction, the Society adjourned to meet in Rochester in September next at the call of the Council.

NOTES ON FRUITS AROUND CINCINNATI.

THE following interesting letter has been handed us by the Secretary of the Genesee Valley Horticultural Society:

C. W. SEELEY—DEAR SIR.—At a recent meeting of this Society, (Cincinnati Hort. Society,) held on the subject of Strawberry Culture, the following premiums were offered, open to all:

1st. For a new Seedling Strawberry superior for market purposes to any now grown in Hamilton Co., a Silver Cup.

2d. For a new Seedling Rose of decided merit One Dollar.

The following Members of the Society were appointed a standing committee to award the premiums:

Dr. JOHN A. WARDER, Maj. J. M. MILLIKIN, Prof. H. M. DAY, Rev. C. E. BABE, and E. G. RICKER, Esq.

The Strawberry season opened here May 10th and closed June 20th. The *Early Washington* is the leading early market variety, but *Hovey*, when quality is taken into account, is decidedly our best market berry. The *Longworth* and *McAvoy* are fine for amateur culture, but too tender for market, and do not remain long in bearing. *Wilson's Albany* is looked upon with favor, as a strong grower

THE BATTLE OF THE BUGS.

We observe that several of our exchanges have commenced the annual campaign against that voracious marauder, the yellow striped bug. We desire to be heard on this matter. We think we have a right to our say. We have had our experience, and we mean to tell it.

Our acquaintance with this interesting little insect has not been of long continuance, but it has been quite intimate. We have learned to appreciate its industry, perseverance and sagacity; we may say in fact, we have great respect for it. In our city garden it was unknown. We were occasionally visited by the great brown squash bug, which we massacred without mercy, but since becoming acquainted with the striped variety, we have learned to consider the former a harmless creature, quite moderate in its ravages, and altogether a very considerate bug. The first year we cultivated our present garden, we were unmolested by the yellow coated gentry. Squashes, cucumbers and pumpkins thrived beyond measure, and all thoughts of bugs were far from us. Indeed, in our confident security, we were led to believe the yellow striped bug, about which we had read so much in the agricultural papers, to be no better than a humbug or a humbear. But, alas! this fatal security cost us dear! During the succeeding spring we noticed one morning a number of bugs with yellow backs upon some of our promising vines. Presently we observed, that they appeared to be decorating the leaves with a sort of lace-work, more ornamental than useful. We began to open our eyes to the state of the case, and concluded that the yellow striped bug had come at last. We have been more and more of the same opinion ever since. However, we were not to be frightened by a bug. We resolved to take immediate and effectual measures to stop the ravages of the enemy. A friend said, put meal on the vines; we did, and the bugs grew fat on it! Try lime, said another; we tried it, and came to the conclusion that the plants had the worst of it. The bugs not only continued their ravages—they multiplied and increased; they came in swarms, and though we pursued them remorselessly with thumb and finger, they literally covered the vines. People told us they would only eat the tender leaves, but we found they not only eat the leaves, tender and tough, but the very stalks down to the ground—they want the entire plant. To console us, some said their ravages would not continue long, but they came early in May, and staid till late in the summer. We began to think the habits of the creatures were very imperfectly known—but had the consolation of feeling that we were in a fair way to become very familiar with them. Still we continued the contest; hopelessly, we confess, but we meant to fight till the last leaf was gone. We put onions in the hills, we laid bits of camphor on nice white paper, we planted tomatoes, we sprinkled ashes, we covered with cotton batting—all, all in vain. The bugs flapped their wings and laughed in our face. Day by day the plants grew raggeder, until it made us feel poverty stricken to look at them. When we viewed the great gashes in the big leaves of our choicest plants, we felt like striking the attitude and exclaiming with Mark Anthony—

“See what a rent the envious *cusses* made!”

and very prolific. Strawberries have sold in the Cincinnati market as follows: First arrivals, \$5 to \$6 per bushel; later arrivals, \$2.50 to \$4. At retail, 25 cts. to 5 cts. The crop has been good.

Cherries have done well this season. The *Black Tartarian* is our best sweet market Cherry, and has sold at \$6 to \$8 per bushel for choice fruit.

May Duke and *Early May* are most prolific, and worth \$2.50 to \$4 per bushel. Cherry comes into market May 20th, and disappears June 15th.

Raspberries have been less productive of late than in former years, particularly the Red variety, a worm having attacked the foliage in the market plantations. *Black Caps* predominate in market. Among the Red fruit the *Allen* is promising, and is prolific, large and hard, fine and round. Market price \$3 to \$5 per bushel.

Houghton's Seedling Gooseberry is largely grown, producing under fair cultivation, say 200 bushels per acre. The fruit is mainly sold in an unripe state in advance of other fruits, at \$2 to \$3 per bushel. It never mildews.

Plums are producing a full crop of perfect fruit and with but little attention to the trees. Jarring the trees and killing the “Turk” on a sheet is the successful remedy, comparatively speaking.

Apples promise well, though some are dropping prematurely.

Pears promise well. The *Bartlett* is our best market Pear; worth we think for money making, all other varieties together. It comes early into prolific bearing, and sells readily at full prices.

Currants are receiving, deservedly, more attention. The *Red* and *White Dutch* are a valuable and profitable market fruit, and under proper culture are very prolific. The fancy varieties are valued as a fancy articles. The *Lawton* Blackberry has not yet equalled the expectation formed of it. It may become more hardy and prolific. The fruit is fine in quality.

The Grape crop promised well; until the warm rains of the past week set in, no rot had appeared, and it is but limited in extent as yet. The *Catawba* is our leading variety. *Isabella*, *Diana*, *Concord*, &c., are at home farther North. *Delaware* is a delicious grape, but a very slender grower with us.

Peaches promise best along the North bank of the Ohio, where protected by fogs from the river.

Yours, Respectfully,

DAVID B. PIERSON, Cor. Sec.

LARGE CUCUMBER.—The *London Gardener's Chronicle* mentions the receipt of a specimen of the *Empress Eugenie* cucumber, 2 feet 3 inches long, and 8 inches round on an average—6½ inches round just above the stalk, and weighing 4 lbs. The editor remarks that “it is very remarkable that all the large cucumbers of which we have authentic records were white-spined.”

HOW TO KEEP GRAPES.—A correspondent of the *Prairie Farmer* says: Keep them in the chaff or more properly the shell, bran or covering of buckwheat. They will keep with little or no trouble.

We did our best, but we were beaten; the yellow jackets remained masters of the field. A few forlorn looking plants we kept along by means of open boxes, but all our hopes of squashes were dashed to the ground. We had paid an extraordinary price for Hubbard seed, and never saw the color of that excellent variety of squash.

Thus ended the first campaign. We were beaten, but not put to flight. We camped on the field, intending to renew the contest another season. Remembering the prudent maxim, "in time of peace prepare for war," we spent all our leisure time during the winter in making covered boxes, and this spring again took the field prepared for action. The plants came up, we clapped on the the boxes, and felt secure. As the enemy did not appear so early as last year, we grew careless, and one morning found a nice large plant, that had been left exposed, literally alive with the bugs. It had not much life in it, however, by the time we had driven them off. The covered boxes, fortunately, proved too much for the voracious intruders, and baffled there they flew to our pumpkin plants and made sad havoc. Annihilated by our love of pumpkin pies, we renewed the contest, and this time with a new weapon. We had lost all faith in any remedy save the boxes, believing there is nothing sufficiently noxious or deadly to conquer the yellow striped bug, but the *New England Farmer*, having recommended spirits of turpentine, applied by a hen feather or on cotton put on a stick and stuck in the hills in a slanting direction over the plants, and several of our contemporaries declaring they had tried it with success, we concluded to experiment with it. Thus far it has partially succeeded. We are inclined to think the bugs don't like it, but they will endure the pungent odor for a time rather than go hungry. In our somewhat trying experience, we have found open boxes the least objectionable remedy. Covered boxes are more effectual, but they exclude the light too much. The bugs will rarely enter the open boxes, and the plants have the benefit of air and light.

And now, having learned so much of the habits of these creatures, we want to learn something of their origin. Whence do they come? Did they enter our garden the second year in the manure, or did they spy us out from afar and colonize upon us? In all our researches in insect literature we find very little written about the yellow striped bug. We have looked at the creature through the microscope, and have come to the conclusion that, like man, it is "fearfully and wonderfully made," and like vice,

"—— is a monster of so frightful mien,
As to be hated, needs but to be seen."

—Portland (Maine) Transcript.

WINE-MAKING IN TRANSYLVANIA.

AFTER about an hour's gallop across some rich green meadows, in which the beautiful Baroness W—— accompanied us—for the ladies of Transylvania almost rival our own as horsewomen—we arrived at the vineyard, situated on the slope of a small hill. There were about one hundred peasants employed in picking and carrying large baskets of the bright grapes to a small pressing-house near by. Beautiful groups they formed as we caught sight of

them every now and then, half hid among the tall vines: there were young and old, men and women—the village seemed to have sent out all its forces for the joyous occasion, and in dresses so picturesque too, that the artist's fancy could have desired no happier union of color, form, or expression. Leaving the Baroness in conversation with some of the old peasant women, the Baron beckoned us away, and led us alone to see the pressing process. I could not understand this mystery, but, like a wise man, held my tongue, and submitted—and it was well I did. In a number of large tubs we found a set of almost naked men dancing barefooted, with all their force, to the music of the bagpipes, on the heaps of fruit which the carriers were throwing into them. I did not wonder we were led to this place alone, for except in some of the Silenic processions of Ponsin, I never saw so extraordinary a scene. And it is in this manner the whole wine of the country is prepared! The Transylvanians, who are singularly delicate as to the cleanliness of their food, declare that every possible impurity is driven off in the fermentation the wine goes through after, and I was not sufficiently cruel to undecieve them. The great object of all this dancing seems to be to break the grapes, for they are afterward subjected to the press. I need not say that a thousand simple mechanical contrivances might be substituted for this nasty process. It is reckoned that one man can dance about two hours, when his feet become so cold he is forced to yield his place to another. In cold weather, hot wine is often poured over their legs to enable them to hold out longer, and spirits are allowed almost *ad libitum*. But the greatest support of the wine-presser is the bagpipe or fiddle, without which he could not continue his dancing half an hour. During the whole time, he dances the regular national step, and accompanies it with a song, which he improvises as he goes on. The usual termination of the vintage is a supper and a dance for the whole village. Transylvania is a country which will probably one day assume a high rank as a wine-growing district. It is almost entirely laid out in small hills, it is well watered, a great many of its strata are of volcanic origin, and the land itself is rather poor: all circumstances which, united to its geographical position, fit it for the purposes of the wine-grower. Although, even at the present time, no less than one-ninth of the whole population is said to live by the cultivation of the vine, nothing can be more careless than the actual method of wine-making. All kinds of grapes are mixed indiscriminately; no care is taken to separate the over-ripe and those yet green from the others; and the process of pressing is, as I have described it, dirty and careless. The cultivation of the vine is equally neglected or ill-understood. Notwithstanding these disadvantages, however, there are already some score different kinds of wine which enjoy a well-deserved reputation.—*Paget's Hungary and Transylvania.*

KEEPING APPLES.—A correspondent of the *Farmers' Journal* says he took a keg full of apples last fall, which he securely headed up and sunk to the bottom of a mill-pond. On bringing them to the surface a few days ago, every apple was found to be quite free from speck or rot, and as sound and unwrinkled as when taken from the tree.



New Advertisements this Month.

Wood Cuts for Sale—Joseph Harris, Rochester, N. Y.
 Honey—G. G. Berry, North Stamford, N. H.
 Select Strawberries—Frost & Co., Rochester, N. Y.
 Rochester and Lake Avenue Nurseries—J. Donellan & Co., Rochester, N. Y.
 Cider Press Screws—L. M. Arnold, Poughkeepsie, N. Y.
 Farms for Sale—Messrs. Wright, Ingersoll, C. W.
 Book Agents—E. G. Storke, Auburn, N. Y.
 New Book on Africa—Ticknor & Field, Boston, Mass.
 Cider and Wine Mill—W. O. Hickok, Harrisburgh, Pa.
 \$150 per Month—J. S. Pardee, Binghamton, N. Y.
 Trees for Sale—Jayne & Plattman, Benton, Yates Co., N. Y.
 Strawberries—John Wilson, Albany, N. Y.
 Strawberries—Wm. R. Prince & Co., Flushing, N. Y.
 Genesee Valley Nurseries—Frost & Co., Rochester, N. Y.
 Geneva Nursery—W., T. & E. Smith, Geneva, N. Y.
 Trees for the Autumn of 1860—T. C. Maxwell & Bros., Geneva, N. Y.
 Small Fruits—Frost & Co., Rochester, N. Y.
 Sugar Evaporator—Blymyus, Bates & Day, Mansfield, Ohio.
 Apple Grafts—Barnaly, Teas & Shepherd, Raysville, Ind.
 The Austin Shaker Seedling—Chauncey Miller, Albany, N. Y.
 Air-Pressure Churn Company, New York City.

CASH PRIZES! CASH PRIZES.—We regret to be still obliged to say that our offer of Cash Prizes for clubs to the present half volume of the *Genesee Farmer*, are attracting little or no attention. This ought not so to be. The prizes are certainly liberal, and are worthy of a little competition. Any young man might secure one of the largest by a little effort. To show about how large—or rather how *small*—a club will probably be necessary to take one of these cash prizes, we may state that last year a club of 22 subscribers to the half volume took a prize of \$1; 23 a prize of \$2; 24, \$3; 25, \$4; 27, \$5; 28, \$6; 29, \$7; 30, \$8; 32, \$9; 36, \$10; etc. Are there any of our subscribers who can not take one of these prizes?

The prizes this year are the same as last year, and will, apparently, be taken by very small clubs.

AMERICAN POMOLOGICAL SOCIETY, SEPT. 11, 1860.—Orchardists, fruit-growers and pomologists, throughout the country, should bear in mind that the 11th day of September is the time appointed for the assembling of the American Pomological Society at Philadelphia. Many questions of the highest interest to fruit cultivators will be discussed, and the merits and demerits of a great variety of fruits will be fully brought out; and we can not but advise a general attendance of all interested in these matters in all parts of the Union and Canada.

UPLAND RICE.—We are indebted to Mr. D. DICKSON, of Oxford, Ga., for some seed of upland rice. Mr. D. says "it grows well on high, dry upland, rich or poor; requires less rain than corn, and will yield twice as much per acre as corn." It is planted in Georgia from the first of March till the middle of June.

NOTES ON THE WEATHER FROM JUNE 15TH TO JULY 16TH, 1860.—In the last half of June, the weather was very pleasant and uniform—fine for all the crops. The earth was rather dry, even with the moderate rains that fell twice, till the 28th, when a powerful rain drenched this section. The water of this rain amounted to 2.8 inches. The rain of the month was 3.782 inches.

The average heat of this half was 69.1°—very near the mean for 23 years; and the mean of the month was 66.5°—just exceeding the same for 23 years. At noon of the 25th, the heat was 88°, and the mean of the day 76°; and the mean was the same, 76°, for the 28th. The last five days were rather warm.

Fruits and vegetables of the season were abundant. Strawberries, very large and delicious, to the end of the month. Cherries for the last fortnight excellent, and the trees loaded with them. Black raspberries in market for the last week of the month. Excellent green peas plenty for half a month, and the *Marrowfats* are following.

The Horticultural Floral Exhibition, on the 22d, was very fine. The Rose was the belle of the occasion, when several hundred fair sisters decorated the scene. Thus have its varieties multiplied. Many other famed beauties graced the tables. The variety, magnitude, color, and taste of the strawberries, was surprising and joyous.

Hay has been making in the last week, while winter barley also began to be cut, and some fields of rye and of winter wheat were nearly ready for the reaper. The promise of abundance is rich.

Severe storms have continued through this half of the month, as in the first half. On the 17th, at Albany, was a heavy storm of thunder, rain and hail at 5 P. M. On the 18th was another storm in much of Dutchess Co. On the 19th, great wind, hail and rain, at Groverville, Herkimer Co. At Hartford, Ct., a great rain, four inches in two hours, on the 20th, from 10 to 12. On the 29th, great gale and rain at Brooklyn, Long Island, doing much damage; also severe storm at Boston, as well as at Brighton and other towns in the vicinity; also at Springfield, Mass.; and also at Poughkeepsie and its surrounding towns.

The scale-bug, called by Dr. FITCH *Lecanium acericorticis*, was on the tender limbs of the soft maple in May, about an eighth of an inch long. In the beginning of June, it began to project its cottony mass of thread from its hinder and upper part, which increased in size to that of a large pea and contained several hundred small eggs, while the bug, lying on its belly, showed a tortoise-looking back of more than a quarter of an inch long. Sometimes these cotton balls were so clustered as to cover more than half of the limb on its under part. At the close of July the eggs had begun to hatch, and the very small insects, like wood-lice, crawled up the leaves and fastened themselves along the ribs or veins of the leaf, often in one continued line. What is to be the result? The insect is new here, unless seen on one tree last year, in the city. On the hard maple only a few appear. It has been found in one case on the honey-locust, and in one other on a willow. Some soft maples are nearly covered with them. June has been a very fine month.

July came in rather cool. Indeed, the first half of it has the mean heat of 65.7°, which is 4.5° below the mean for 23 years, and is actually half a degree lower than the mean heat of June last.

The highest temperature was at 2 P. M. on the 15th, and then only 80°, with a mean heat of the day 79.3°; while the highest last year in this half was 93°, and the heat ranged for five days from 77° to 83.6°—very warm compared with any of the five current days just passed.

While our weather was cool at the beginning of July, at the South the heat was great from the 2d to the 5th—ranging at Charleston, S. C., from 96° to 100°, and very oppressive ever westward beyond the Mississippi. Although it is not uncommon to be 96° or more a few times in the hottest weather here and far North of us, it is very rarely so high at the South. Here, too, the night becomes much cooler, but at the South such weather is very oppressive through the night also.

The rain of the 4th gave 1.69 inch of water, and but little has fallen since, though the earth is not yet in need of more.

A very severe thunder storm passed over Peoria, Ill., and its vicinity, on the 1st.

Wheat harvest is nearly finished about us—the most being cut, and in fine order, by the 14th. This year wheat is a fine crop. Some new wheat came into market in the last of the first week of this month, on the 5th or 6th. Black raspberries followed the disappearance of the strawberry on the first week, and soon was attended by the red fine raspberry. Cherries abound, of fine size and variety, and rich quality. The finest vegetables of the season fill the market. Truly we have a goodly heritage.

The scale-bug, already noticed, is making progress in its work. Many of them are dead and decayed, but multitudes more of the wood-lice have issued from the cottony sacks, and multitudes of eggs are yet to be hatched. The leaves on one tree are rapidly decaying, drying and falling off, but the cause of this is not clearly the lice. Let us wait in hope that these beautiful shade trees are not to be destroyed by this insect. Who can estimate their value? Looking at the desolations in the wheat-fields by the Hessian fly and by the wheat-head midge, we know how formidable are these minute foes—an army with which human wisdom seems impotent to contend.

“FAMINE PRICES.”—The gloomy accounts in regard to the growing crops in Great Britain, have led some people to anticipate “famine prices” for grain in this country. Farmer John Bull is proverbially fond of grumbling, and these accounts should be taken with a grain of allowance. The markets afford the best indication of the real state of the crops, and the latest reports from England show a slight depression in the prices of flour and grain. Prices in this country are now above the average. They may be higher, but they are quite as likely to be lower. Much depends on the weather in England. Farmers will, undoubtedly, secure good prices for their crops this season, and it is generally the safest way to sell when fair rates can be obtained, rather than to wait for “famine prices.”

WOOD CUTS.—The book containing impressions of over seven hundred of the engravings used in the *Genesee Farmer* and *Rural Annual* and *Horticultural Directory* is now ready, and will be sent prepaid to any address on the receipt 50 cents. The book contains a complete index, showing where descriptions of the cuts will be found.

WEATHER AND THE CROPS.—The Hon. T. C. PETERS, the New York State Assessor, who has just passed over a considerable portion of the State, informs us that the crops are everywhere good. The wheat, he thinks, will not average as much *per acre* as last year; but there is a far greater breadth of land sown. At this date (July 23) a small portion only of the wheat is gathered. For the last week we have had, in this vicinity, unfavorable weather for harvesting operations, though as yet no damage has been done. Corn is generally good. Potatoes, in some sections, are not doing well.

O. S. W., of Madison, Wis., says: “Farmers, as well as the rest of mankind, are very busy, and in this section (four miles north-east of the city), there are some who can claim the title at least of being ‘Some farmers.’ For instance: J. V. ROBBINS has 600 acres, all in good cultivation, of the various crops; a dairy of 100 cows; *forty acres of carrots*, etc. in proportion, which it would require no small army of brave soldiers to master the weeds should they get the start—but as yet they look fine. The fruit prospects of the State were never half so flattering. Standard pears, three years planted, are well supplied with ‘luscious prospects,’ and just now we are all ‘hoping on’ for a realization, and ‘hope’ we will not be obliged to ‘hope ever.’”

GENEVA NURSERIES.—On our late visit to Geneva, N. Y., we called at the Nurseries of Messrs. T. C. MAXWELL & Brothers. These gentlemen have over 200 acres of land occupied with nursery trees. Everything is admirably cultivated, and in a most flourishing condition. A block of about five acres of dwarf pear trees particularly attracted attention by their vigorous growth and healthy appearance. Yet even here, as in Rochester, slight symptoms of the mysterious blight are manifest. The Messrs. M. pay much attention to the grape, and their green-houses are occupied with thousands of young *Delawares*, *Dianas*, and other choice varieties, all in admirable condition.

MESSRS. W., T. & E. SMITH have an equally extensive and flourishing nursery adjoining the above; but we were unfortunate in not meeting with the proprietors. We found an extensive range of green-houses, filled with young grape vines and every indication of good culture and prosperity.

THE HALF VOLUME of the *Genesee Farmer* commenced with the July number. Now is the time to subscribe. It will be sent to any address for 25 cents.

Our friends at post offices, where we have but one or two subscribers, would greatly oblige us by acting as agent for the *Farmer*. Now is a good time to introduce the paper. We will send five copies of the half volume for \$1, and a *Rural Annual* to the person getting up the club. Other inducements for forming larger clubs will be found in our columns.

SALE OF THOROUGH-BRED CATTLE.—At Mr. R. A. ALEXANDER'S annual sale of Short-horn cattle in Kentucky, 18 cows and heifers were sold at an average price of \$152.63, and 19 bulls averaged \$153.42 each. His herd is one of the largest and best in America. At Mr. WAINWRIGHT'S sale of Devons, at Rhinebeck, N. Y., one cow was bought by Mr. McCATCHEM, of Louisiana, for \$200; and the same gentleman also paid \$160 each for a cow and bull.

AN AMERICAN MOWING MACHINE IN ENGLAND.—The London *Agricultural Gazette* of July 7, speaking of the forthcoming Exhibition of the Royal Agricultural Society, says:

"Nothing is now more perfectly certain than the availability of machinery for cutting grass. The road to the show-yard lies through a grass field from which a heavy crop of hay has just been gathered. It has been mowed by scythe, and the quality of its performance when compared with Wood's mower is obviously very inferior. The stubble is left of uneven length, and a great deal of it much too long where the mowing has been done by hand; where done by the horse-drawn mower the stubble is of perfectly even length, and no sythe could remove anything more, worth saving."

SORGHUM SUGAR.—We have received specimens of sugar made by COOK'S Portable Sugar Evaporator from the Chinese sugar cane. It is nearly as white as the best cane sugar. This sugar evaporator is manufactured by MESSRS. BLYMYUS, BATES & DAY, of Mansfield, Ohio, and is highly spoken of. For price, &c., see advertisement in this number of the *Farmer*.

THE FARMER AND RURAL ANNUAL CLUBS.—We will send eight copies of the *Genesee Farmer* for the current half-volume (July to December, inclusive), and eight copies of the *Rural Annual and Horticultural Directory* for 1860, for three dollars (87½ cents each), and an extra copy of the *Farmer* and *Annual* to the person getting up the club.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—As announced last month, we have just struck off another edition of three thousand copies of this work for 1860. Not a reader of the *Farmer* should be without this work. It will be sent prepaid by mail to any address for twenty-five cents.

LADIES DEPARTMENT.—We are compelled to omit the Ladies' Department this month. It is our wish to devote more space to this department, and should feel obliged if our fair readers would send us a few short and appropriate contributions.

THE RURAL POETRY OF THE ENGLISH LANGUAGE.—(T. L. M.) We will send you, or others, this beautiful book, prepaid by mail, on the receipt of the publishers price, \$3 00.

Inquiries and Answers.

FARMS FOR SALE.—I have often thought that it would be interesting and useful to the readers of the *Genesee Farmer* if those having farms for sale or to rent would advertise them in your paper. The advertisements need not be long—briefly stating the location of the farm, number of acres, improvements, buildings, price, etc.—JOHN WILLIAMS, July, 1860.

This is a good suggestion, and one which we shall be happy to see carried out. We will make a special department in our advertising columns for this purpose. Let the advertisements be sent in early in the month, and as short as possible.

WIRE WORMS.—Can any of your readers tell me a method of destroying the wire-worm.—W. D. L. Brantton, C. W.

DESTROYING WILD MUSTARD.—Will some of your correspondents inform me of a more effectual way of destroying it than by pulling by hand?—L. M., Franktown, C. W.

UNFRUITFUL APPLE TREES.—I have four apple trees, about fifteen years old, all thrifty and apparently in good condition. They bloom abundantly every spring, but while the fruit is forming it all drops. I have pruned and dug about them, but without success. Will you, or some of your correspondents, please inform me through the *Farmer* how I must proceed?—B. R. D., Elm Springs, Ky.

We suspect that these trees, although they are now "apparently in good condition," have been stunted by poor culture, which has caused them to form an excessive quantity of fruit-spurs. The remark of our correspondent, that he has pruned the trees and dug about them, to cause them to set fruit, leads to the inference that this practice has not been habitual with him, during the whole growth of the trees since transplanting, as most assuredly it should have been.

That the trees "bloom abundantly," but set no fruit, is evidence in itself that they are not equal to the task imposed on them, and the strength of the trees is exhausted in the production of the blossoms.

Our advice is to continue to cultivate the soil about them as far as their roots extend; in the fall give it a good coat, two or three inches deep, of well-rotted manure, and dig it in. During the winter, prune off two-thirds of the wood of this summer's growth, and thin out the branches where they are growing too close together to admit the free passage of light and air. As soon as the blossom buds form in the spring pick off three-fourths of them; and if the desired result is not obtained the first year, let this system of culture be followed up and it will prove effectual.

BUDDING THE PEAR ON THORN.—Can you or some of your correspondents who are acquainted with the theory of budding, inform me if it would be profitable to bud the pear on thorn, or whether it would be more profitable to graft in the roots of thorn, as the pear stocks are very scarce in the West. I bought, in the spring of 1860 a lot of apple, pear and cherry seedlings; out of 350 pear seedlings, there are but 70 growing. Therefore, if thorn stocks would answer the purpose as well as pear stocks, it would be a great advantage to me, for there are thorn stocks with us in abundance.—R. H. M., Palmyra, Ind.

The pear may be worked on the thorn and form a tree that will last a short time, but the union is quite imperfect, and there must always be a feeling of insecurity in high winds; at the longest they are short-lived.

There is no necessity of using this stock while good trees budded on the *Angers* quince or pear stocks are to be so easily obtained of the nurserymen. It is the worst of folly to try to patch up unsuitable stock, or to waste land in growing seedling apples, peaches, cherries, etc., when good trees, of the very best varieties of fruit, can be purchased with little trouble and at reasonably moderate rates. The planting, staking, training, and after culture of the trees, is the same, whether the varieties are good or bad; and the first crop of good fruit usually pays the difference, if not more, of expense in the first cost.

TROTTING AT AGRICULTURAL FAIRS.—Are not our agricultural exhibitions degenerating from what they were first intended to be? The intention of the originators of these exhibitions was to improve stock; to advance agricultural and mechanical science; and to further agricultural improvement. But what is the effect? Mainly, I would say, to know whose horse can trot the fastest. Take away this part of the exhibition and it will cease to attract attention—in fact, could not be sustained. This is the case in our section, and perhaps more or less in others.—W. H. SNYDER, Rosemont, N. J.

CALIFORNIA RED-WOOD.—(Wm. S. Ruble, *Cherry Hill, Oregon Ter.*) The seeds you sent us of the Red-wood (*Sequoia sempervirens*), in the winter of '58-9, we sowed in the spring and grew the young plants readily, and have now some that we wintered through the last winter in the green-house.

This tree proves to be tender in this longitude north of the latitude of the City of Washington, and there is consequently little demand for it. In the Southern States it does well.

The price at which you state the seed can be furnished—from \$500 to \$1,000 per bushel—is so high that very little if any would find a market. The safest way to engage in the sale of it would be to advertise to make contracts for its delivery at certain rates, and you would then run no risks.

"WHICH IS THE BEST VARIETY OF WHEAT?"—(C. Hoffman, *Derrysburgh, Pa.*) We can not answer this question: it depends so much on circumstances. No one variety is best for all soils and climates. You will find remarks on some varieties of wheat in this number of the *Farmer*. In regard to the "*Turkey Flint* wheat," advertised in the *Genesee Farmer*, we know nothing personally. It may be all that is claimed for it—and it may be a humbug.

COLUMBINE.—(M. S. G., *Fayetteville, Ark.*) The seeds you sent us a year ago last winter of a superior variety of Columbine, we planted last spring, and they prove to be common *Aquilegia Canadensis*, that grows wild all over the Northern States and Canada.

DITCHING MACHINE.—(J. J. B., *Geo. D. Stillson, Esq.,* of this city, has patented a machine for this purpose, which works admirably. It may be seen in operation on the farm of Mr. Buckland, two or three miles east of Rochester. It is worth looking at.

HUNGARIAN OR HONEY BLADE GRASS.—I would like to make some inquiries respecting the Hungarian or Honey blade grass. How early may it be sown? will frosts injure it if sown before settled warm weather? would it be a profitable crop to plow under to improve worn land? and would it be sufficiently advanced to plow under for buckwheat? and can two crops be grown in a year on the same ground?—A. J. Taylor, *Bradford Co., Penn.*

WAGON AXLE.—(W. J., *Hartwood, Va.*) A wagon axle wants to be set so that the wheel will stand on a plumb spoke. The center of bearing on the road should be plumb under the center of boxing; wheels are commonly plumbed by the outer edge of the spoke. If the wheels are nearly straight and the boxes taper much, the end of the axle will turn upward; then it will want some gather—that is, the wheels must be a little closer in front than they are behind, else they will run off.—J. H. A., *Avon, C. W.*

BEES.—I would like an article from some of your experienced correspondents on the management and working of bees. Almost all the bees are leaving round here; some of them leave after they are hived and start to work.—J. H. A., *Avon, C. W.*

PLANTAIN.—Can you or any of the readers of the *Genesee Farmer* tell what is the best way to exterminate the plantain from our fields? There are acres of land spread over with this weed in this neighborhood.—J. B., *Scalp Level, Pa.*

LARGE CLOVER.—We have just finished cutting clover. I think the stalks will average three feet long. I measured one stalk to-day that was *four feet seven inches long*. Is that long for common clover?—W. W. Graham, *Mercer Co., N. Y.*

Agricultural Exhibitions for 1860.

NATIONAL.			
Name.	Where Held.	Date.	
Horse Exhibition.....	Springfield, Mass.....	September 4—7	
United States.....	Cincinnati.....	" 12—20	
STATE.			
American Institute.....	New York.....		
Alabama.....	Montgomery.....	October 29, Nov. 2	
California.....	Sacramento.....	September 19—26	
Canada, Lower.....	Quebec.....		
Canada, Upper.....	Hamilton.....		
Connecticut.....	No exhibition on account of cattle disease.		
Georgia.....	Atlanta.....	October 23—26	
Georgia, (Cotton Plant-ers).....	Macon City.....	Dec. 3, for 3 w'ks.	
Illinois.....	Jacksonville.....	September 10—15	
Indiana.....	Indianapolis.....	October 15—20	
Iowa.....	Iowa City.....	" 2—5	
Kentucky.....	Bowling Green.....	September 18—22	
Kentucky, Central.....	Danville.....	" 4—7	
Maine.....	Portland.....	September 25—26	
Maryland.....	.....	October 30, Nov. 3	
Michigan.....	Detroit.....		
Minnesota.....	Fort Snelling.....	September 27—29	
Missouri.....	St. Louis.....	September 24—27	
Missouri, Central.....	.....	
Mississippi.....	Holly Springs.....	October 16	
Nebraska.....	Omaha.....	September 19—21	
New Hampshire.....	Manchester.....	October 2—4	
New Jersey.....	Elizabeth.....	September 4—7	
New York.....	Elmira.....	October 2—5	
Ohio.....	Dayton.....	September 25—23	
Oregon.....	.....	October 2	
Pennsylvania.....	Wyoming.....	September 24—27	
Phomological Society.....	Philadelphia.....	" 11—14	
St. Louis Ag. and Me-chanical Association.....	St. Louis.....	" 24—27	
South Carolina.....	Columbia.....	November 13—16	
Southern Central.....	.....	
Tennessee.....	Nashville.....	October 8—13	
Tennessee, Middle Di- vision.....	Franklin.....	September 24—28	
Vermont.....	Burlington.....	11—14	
Virginia, Central.....	Richmond.....	October 22—25	
Wisconsin.....	Madison.....	September 24—29	

COUNTY.

NEW YORK.

Albany.....	Albany.....	September 18—22
Broome.....	Lisle Village.....	" 11—13
Cattaraugus.....	Little Valley.....	" 9—27
Chautauque.....	Jamestown.....	" 11—13
Chenango.....	Coventry.....	October 3—4
Chemung.....	.....
Clinton.....	Plattsburgh.....	September 10—11
Cortland.....	Virgil.....	" 20—22
Essex.....	Essex Village.....	
Franklin.....	.....	September 11
Delaware.....	.....
Genesee Valley.....	Nunda.....	" 13—15
Herkimer.....	Little Falls.....	
Livingston.....	Genesee.....	September 27—28
Lewis.....	Turin.....	" 25—27
Madison.....	Brockfield.....	" 26—27
Monroe.....	Rochester.....	" 26—28
Oneida.....	Utica.....	" 25—27
Oswego.....	Mexico.....	" 18—20
Ontario.....	Canandaigua.....	" 26—28
Onondaga.....	.....	" 26—28
Putnam.....	Brewster.....	" 26—27
Queens.....	Jamaica.....	" 19
Rensselaer.....	Lausburgh.....	" 19—20
St. Lawrence Interna- tional.....	Ogdensburgh.....	" 26—29
St. Lawrence.....	Canton.....	" 26—28
Susquehannah Valley.....	Unadilla.....	" 25—26
Seneca.....	Waterloo.....	" 26—28
Skaneateles.....	Skaneateles.....	
Saratoga.....	Saratoga Springs.....	" 4—7
Tompkins.....	Ithaca.....	" 5—7
Tonawanda Valley.....	Attica.....	" 26—27
Ulster.....	Kingston.....	" 26—23
Union, Monroe Co.....	Brockport.....	October 2—3
Westchester.....	Mt. Kisco.....	September 18—20
Wayne.....	Clyde.....	" 12
Wayne, Palmyra Un- ion.....	Palmyra.....	October 2—4

MAINE.

Androscoggin.....	Lewiston.....	October 2—5
Franklin.....	Farmington.....	" 3—5
Hancock.....	Ellsworth.....	September 26—27

MARYLAND.

Frederick.....	Frederick.....	October 16—19
----------------	----------------	---------------

MASSACHUSETTS.

Franklin	Greenfield	September	27-28
Lowhagan	Mason Village	"	25
Middlesex, North	Lowell	"	13-14
Nantucket	Nantucket	October	11-12
Worcester	Worcester	"	2-3

CONNECTICUT.

Windham	Brooklyn	September	12-14
---------	----------	-----------	-------

PENNSYLVANIA.

Bucks	Newtown	September	26-27
Berks	Reading	"	23-27
Lawrence	Newcastle	October	2-4
Montgomery	Springtown	"	2-4

OHIO.

Athens	Athens	September	25-27
Adams	West Union	"	25-25
Ashtabula	Ashtabula	"	26-28
Ashtabula	Ashtabula	October	10-12
Brown, (Independent)	Wiley	September	25-28
Brown	Georgetown	"	4-7
Builer	Hamilton	October	2-5
Belmont	St. Clairsville	September	25-28
Clermont	Olive Branch	"	18-20
Clermont	Bantam	"	11-14
Crawford	Bucyrus	October	3-5
Clarke	Springfield	"	2-5
Champaign	Urbana	"	9-12
Clinton	Wilmington	September	18-20
Columbiana	New Lisbon	"	26-28
Cuyahoga	Cleveland	October	2-5
Coshocton	Coshocton	"	10-11
Defiance	Defiance	September	19-21
Delaware	Delaware	"	19-21
Fairfield	Lancaster	October	14
Fayette	Washington	September	5-7
Greene	Xenia	"	18-21
Geauga	Burton	"	25-27
Gallia	Gallipolis	"	11-12
Hoeking	Logan	October	3-5
Harrison	Cadiz	"	3-5
Huron	Norwalk	"	3-5
Highland	Hillsboro	"	2-5
Hancock	Findlay	September	27-29
Jackson	Jackson	"	26-28
Knox	Mt. Vernon	"	26-28
Lake	Painesville	October	3-5
Logan	Bellfontaine	"	4-7
Lawrence	Ironton	"	3-5
Loraine	Elyria	"	3-5
Licking	Newark	"	3-5
Lucas	"	"	3-5
Mahoning	Canfield	"	2-4
Medina	Medina	September	18-20
Montgomery	Dayton	"	25-28
Morgan	McConnellsville	October	3-5
Miami	Troy	September	21-24
Morrow	Mt. Gilead	October	10-12
Marion	Marion	"	3-5
Madison	London	September	19-21
Muskingham	Zanesville	"	18-22
Preble	Eaton	"	18-21
Portage	Ravenna	"	5-7
Pickaway	Ciderville	"	12-14
Putnam	Ottawa	October	3-5
Richland	Mansfield	"	2-5
Ross	Chillicothe	"	3-5
Seneca	Tiffin	"	3-5
Summit	Akron	"	2-4
Scioto	Portsmouth	September	12-14
Sandusky	Fremont	October	2-4
Twinsburgh	Twinsburgh	September	12-14
Trumbull	Warren	"	11-14
Tuscarawas	New Philadelphia	"	26-28
Union	Marysville	"	26-28
Warren	Lebanon	"	12-14
Washington	Marietta	October	3-5
Wayne	Wooster	"	3-5
Wyandot	Upper Sandusky	"	10-12
Williams	Bryan	"	3-5

MICHIGAN.

Berrien	Niles	September	26-28
Ingham	Mason	"	26-27
Lenawee	Adrian	"	25-27
Lapeer	Lapeer	"	25-27
Macomb	Utica	"	26-28
Oakland	Pontiac	October	10-12
Washtenaw & Wayne	Ypsilanti	"	10-12
St. Joseph	Centreville	September	26-28
Sanilac	Lexington	"	27-28
Van Buren	Paw Paw	"	28-29

INDIANA.

Allen	Fort Wayne	September	19-21
Clark	Charlestown	"	12-14

Decatur	Greensburg	"	18-23
Dearborn	Lawrenceburg	"	10-11
Fayette	Cannonville	"	4-7
Fulton	Rochester	October	12-13
Gibson	Princeton	"	9-12
Jasper	Russelslaer	September	26-28
Kosciusko	Warsaw	October	3-5
Laporte	Laporte	September	19-20
Lawrence	Bedford	"	4
Miami	Perru	"	26-28
Monroe	Bloomington	"	4-6
Morgan	Centerton	"	25-28
Putnam	Greencastle	"	10-14
Park	Montezuma	October	3-5
Ripley	Versailles	September	18-20
Rush	Rushville	"	11-14
Sullivan	Carlisle	"	26-28
Shelby	Shelbyville	"	11-14
Union	Knights own	August	28-31
Union	Russelsville	September	3-5
Vermillion	Montezuma	October	2-5
Wells	Bluffton	"	2-3
Warrick	Boonville	"	2-6
Whitley	Columbia City	"	3-5
Washington	Salem	September	11-14

MISSISSIPPI.

Attala	Liberty Chapel	November	1-3
Choctaw	Bankston	"	9-10
Chickasaw	Okolona	October	23-26
De Soto	Herando	"	9-13
Grenada	Grenada	"	30, Nov. 2
Lowndes	Columbus	"	10-12
Marshall	Holly Springs	"	2-5
Monroe	Abbeeden	"	16-19
Oktibeha	Starksville	"	22-25
Pontotoc	Pontotoc	"	30, Nov. 4
Scott	Hillsboro	November	7-8
Warren	Vicksburg	October	18

ILLINOIS.

Carroll	Mt. Carroll	September	17-19
Champaign	Urbana	"	"
Cass	Virginia	"	4-7
Dupage	Wheaton	"	26-28
Hancock	Carthage	"	19-21
Lee	Dixon	October	1-5
Lake	Liberty	"	2-3
La Salle	Ottawa	September	25-28
Monroe	Waterloo	October	16-18
Macoupin	Carlinville	"	2-5
Macon	Decatur	"	1-5
Ogle	Oregon	September	25-27
Pike	Pittsfield	October	2-4
Rock Island	Rock Island	September	19-21
Scott	Winchester	October	2-4
Tazewell	Tremont	September	26-28

WISCONSIN.

Dodge	Juneau	"	"
Iowa	Dodgeville	"	"
Racine	Union Grove	September	11-13
Winnebago	Oshkosh	"	19-20
Waupaca	Weyanwaga Village	"	18-14

IOWA.

Appanose	Centerville	October	5-6
Bremer	Waverly	September	26-27
Delaware	Delhi	"	25-27
Jaekson	Andrew	"	19-20
Marshall	Marietta	"	19-21
Poweshieck	Montezuma	"	22-23
Warren	Indianola	"	20-21

KENTUCKY.

Clark	Winchester	August 30, Sept. 1	
Harrison	Cynthiana	September	8-12
Warren	Bowling Green	"	18-22

MISSOURI.

Cass	Pleasant Hill	September	18-21
Clinton	Plattsburgh	"	11-14
Gasconade	Herrmann	"	5-6
Franklin	Union	October	13-15
Jackson	Independence	September	4-9

CANADA.

North Wellington	Fergus	October	9
------------------	--------	---------	---

TENNESSEE.

Bedford	Shelbyville	September	18-22
Giles	Pulaski	October	9-18
Gibson	Trenton	"	10-12
Maury	Columbia	"	1-6
Marshall	Lewksburg	September	11-14
Putnam	Cookville	October	1-4
Perry	"	"	16-20
Sumner	Gallatin	September	17-22
Smith	Rome	"	26-29
Warren	McMinnsville	October	9-11

VERMONT.			
Rutland	Rutland	September	6-7
Windsor	Brooklyn	"	12-14
MINNESOTA.			
Winona	Winona	September	19-21
NEW JERSEY.			
Warren	Belvidere	September	11-14
NEW HAMPSHIRE.			
Hillsboro	Weare	September	19-20
Rockingham	Portsmouth	"	20-21

Special Notices.

JAMES PYLE'S DIETETIC SALERATUS—JAMES PYLE'S Dietetic Saleratus is the purest, best, and healthiest Saleratus ever made. The Press every where applauds it. More than one hundred and fifty thousand families use it. Grocers all over the country deal in it, and prefer it to all others. All who use it certify in its favor; and when they have proved its qualities will use no other; for *no other will make as good bread, biscuit, and cake, whatever may be the pretensions of interested imitators.* Depot, 345 Washington St., New York.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
ROCHESTER, N. Y., JULY 23, 1860.

NEW YORK MARKET.—July 19.

FLOUR AND MEAL—The demand for Western and State flour is more active in part for export to London. Superfine State, \$5.15@5.20; for extra do., \$5.40@5.45; \$5.30@5.55 for choice do.; \$5.60@5.70 for shipping brands of Ohio round hoop extra. Canada Flour in limited request—\$5.30@5.45 for spring wheat extra, and \$5.55@5.70 for winter do. Southern Flour lower and more plenty—\$5.50@5.80 for mixed to good superfine Alexandria and \$5.55@5.70 for the better grades. Rye Flour at \$3.50@4.25. Corn meal active at \$3.50 for Jersey, \$3.60 for Baltimore, and \$3.65@3.7 for Brandywine.

GRAIN—Wheat market more active. Red Western, \$1.34½@1.35; Milwaukee club, \$1.27@1.30; No. 1 Chicago spring at \$1.26; white Canadian, \$1.40@1.42½; white Michigan at \$1.40; white Ohio and Indiana, \$1.42@1.45; prime red Southern at \$1.40; white do., \$1.50. Rye in limited demand at 51c@53c. Oats—demand fair at 37c@38½c for Canada East; 35½c@39½c for Western Canada West, and 40c@41c for State. Corn lower, at 61c@61½c for sound mixed Western; 62c for very choice do.; 63c@64c for round yellow; 63c@66c for Western do., and 50c for choice white Southern.

PROVISIONS—The inquiry for Pork is more active at \$19.40 @ \$19.50 for new Mess; \$18.50 for old and prime do.; \$14.25@ \$14.37½ for new Prime. Beef Hams in fair demand—western \$15.00@15.50. Beef firm at \$4.50@5.00 for country mess; \$5.00@5.10 for re-packed do mess, and \$1.00@1.25 for extra mess. Lard, 13½c. Butter, 12c@15c for Ohio, and 14c@15c for State. Cheese, 6½c@9c for Ohio, and 8½c@11 for State.

SEEDS—A fair demand for clover seed at 8c. Cotton seed, \$1.10 per bushel of 56 lbs. HAY—Demand fair for shipping, at 75c@85c per cwt.

PHILADELPHIA MARKET.—July 19.

FLOUR AND MEAL—Market quiet. Standard superfine is held at \$5.25, and extras at \$5.50; extra family and fancy lots, \$5.75@6.50. Rye Flour and Corn Meal quiet—the former at \$3.62, and the latter nominal at \$3.37½ per bbl. in Pennsylvania meal.

GRAIN—There is a steady demand for Wheat—New red, \$1.28 for prime Delaware, and \$1.27 for Pennsylvania; Old Kentucky white at \$1.45@1.50; Southern white ranges from \$1.30@1.40. Rye is quiet—old Pennsylvania at 78c@79c. Corn scarce at 66c in store. Oats firmer—Pennsylvania at 39c@40c; Delaware, 36c.

PROVISIONS—Mess Pork at \$19.50, with small sales. Beef dull. Bacon, 11½c. Shoulders, 10c. Sides, 11c@11½c. Lard, 13½c for cash; kegs, 13½c@14c. Butter dull—solid packed and roll are selling at 10c@12c.

SEEDS—Quiet. Clover at \$4.70@4.75 per bushel—there is very little offering. Timothy is also quiet at \$4@4.25. Domestic Flaxseed sells on arrival at \$1.62.

WOOL—Market firm and more active. 40@47c for common and medium up to 50@54c for half and full blood.

BUFFALO MARKET.—July 19.

FLOUR—Market steady and demand encouraging. \$4.75@5 for extra Wisconsin; for good choice extra Indiana and Ohio, \$5 @ \$5.87½, and \$5.75@6 for double extras and favorite family brands.

GRAIN—Wheat market quiet. Red winter Ohio, \$1.15½; white winter, old crop at \$1.25. Corn—prices higher; Toledo

early at 51½c; Ohio, 52c; Illinois at 52c. Oats quiet and steady. Rye dull at 65c. Barley quiet at 66c.

PROVISIONS—Heavy mess pork held firmly at \$18.50; light do, \$17.40; prime, \$18.50. Beef quiet at \$7.50. Bacon at 8½c for shoulders; 9½c for plain hams, 10½c for sugar cured, and 11c@11½c for sacked do. Lard, 12c in bbls., and 12½c in kegs. Cheese, 7@8c.

WOOL—Prices firm. Extr pulled sells at 39@45c; No. 1 is worth 30@33c; superfine, 37½c@40c, and extra, 45c. Good Canada Wool will bring 30c.

CHICAGO MARKET.—July 17.

FLOUR—Quiet; sales of choice spring extra at \$5.25.

GRAIN—Wheat active with sales of No. 1 white on track at \$1.20; No. 2 do., \$1.11; No. 1 red, \$1.12@1.12½; No. 2 do., \$1.10@1.09; No. 2 spring, \$1.06@1.08; rejected do., 90c@92c. Oats quiet, with sales at 26½c afloat and 25c in store. Rye quiet—sales of new at 51c on track. Barley dull with no sales to quote from.

PROVISIONS—Heavy mess Pork, \$18.75. Lard nominal at 11c@11½c. Butter 9½c. Eggs 7c per doz. New potatoes, 44c@50c per bushel.

POULTRY—Chickens, \$1.50@1.75 per doz. Turkeys, 5c@6c per lb.

CATTLE—Beef Cattle, \$3@3.75, for fair to good, and \$4 for extra. Hogs—demand good and prices firm with sales at \$5.25@5.35 per cwt.

HIDES—Dull at the following quotations: Green salted, 7¼@7½c; dry salted, 10@12½c; dry flint, 15@15½c.

WOOL—Market quiet 25@45c per lb., depending on quality

CINCINNATI MARKET.—July 20

FLOUR—Market dull and depressed. Old made superfine is offered at \$4.25, and do. extra at \$4.40@4.60; extra new wheat at \$4.7 @ \$4.60, and extra family to fancy at \$4.75@5.

GRAIN—There is a good demand for prime white wheat for export—market firm at \$1.05@1.10; red in fair demand at \$1.00 for prime. Corn—market dull. Oats dull at 37c@38c. Rye 65c@70c. Barley—old is nominal 80 @ 85c; new at 75@80c.

PROVISIONS—Mess Pork quiet; inferior brands can be bought at \$18.50 @ \$18.75 and first-class at \$19. Bacon, at 11½c@11½c. Cheese, Western Reserve, 7@7½c. Butter, 14@15c for Western Reserve, and 11c@12c for Central Ohio; common dull at 8c@10c.

HAY—Market firm, with a brisk demand at \$15@16 per ton for prime new, and 15 for prime old in bales.

SEEDS—Flaxseed at \$1.10 per bushel.

TORONTO MARKET.—July 19.

FLOUR—Dull. Present quotations as follows: Superfine, \$5.15 @ \$5.20; fancy, \$5.40@5.60; extra, \$5.90@6.20; double extra, \$6.50@7 per barrel.

GRAIN—Wheat, \$1.25@1.30 per bushel. Barley quiet at 50c @55c. Rye scarce and nominal at 6c@65c per bushel. Oats in fair request at 32@33c. Peas, 54@55c per bush.

PROVISIONS—Potatoes, new, very in price from 75c@80c and sometimes 90c per bushel; old potatoes, 2c@27c per bushel. Fresh Butter, 12c@15c; good new No. 1 tub is scarce at 12c@12½c per lb. wholesale. Eggs, 12½c@13c per dozen wholesale, and 15c retail.

CATTLE—Best heaves at \$5.50 per 100 lbs. of beef, and second class at \$4.50@5; inferior cattle are held at \$3.50. Sheep, \$8@ \$5 each. Lambs, \$3@5, and Calves, \$3.50 each.

POULTRY—Spring chickens 1@20c per pair, and 25c for year old chickens. Ducks, 30c@40c per pair.

WOOL—Offered very freely and prices better; 25@30c per lb. for good washed wool. Sheepskins are also better and sell at 26c each. Lamb-skins, 30c@40c. Beef hides, \$5@5.50 per 100 lbs Calf-skins, 10c per lb.

BRIGHTON CATTLE MARKET.—July 19.

At market, 1000 Cows, 300 Stores, 4000 Sheep and Lambs, 470 Swine.

PRICES—Market Beef—Extra, \$7.25. First quality, \$7.00; Second \$6.75; Third, \$5.50 Working Oxen—None. Milch Cows—\$41@47; Common, \$19@20. Veal Calves—\$3.00, \$4.00@ \$5.0. Yearlings—None. Two Years old—\$9@11. Three Years old—\$12@17. Hides—6c@6½c per lb. Calf Skins—10c@13c per lb. Tallow—6c@6½c. Sheep and Lambs—\$1.25@1.50; extra, \$1.75, \$2.00@3.00. Pelt—\$0.50@1.75 Swine—Fat Hogs, none. Stores, wholesale, 6c@6½c; retail, 6½c@8c. Spring Pigs, 7½c@8c; retail, 8½c@9c.

Beaves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

LIVERPOOL MARKET.—June 30.

FLOUR—American Western canal, old, \$6.36@6.50; Ohio \$7.50@7.75; sour, \$6c@6.50; Canada sweet, \$6.75@7.25.

GRAIN—American white wheat, \$1.73@1.83; red, \$1.55@1.62; Canadian white, \$1.61@1.73; do. red, \$1.51@1.62. Indian corn—white, \$1.06½@1.12½; yellow, \$1@1.01½. All per bush, of 60 lbs.

WOOL—Ranges in price from 11c@40c per lb.

LONDON MARKET.—July 2.

FLOUR—American sour, \$6.50@7; sweet, \$7.25@7.75.
GRAIN—Wheat—American white, \$1.59@1.74; do red, \$1.50@1.77. Indian corn—white, \$1.0@1.14; yellow, \$1.05@1.11, per 60 lbs.
WOOL—Domestic fleece, 32c@40c; sorts, 80c@45c per lb.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

THE AIR-PRESSURE CHURN.
PATENTED FEBRUARY 8th, 1859.

THE AIR-PRESSURE CHURN has been proved, by some of the best dairymen in the country, to be the only perfect churn in existence. It has no dashers, but works by the aid of condensed air; it is simple, durable, and quick-working, and is Warranted to make More Butter than any other Churn! INVARIABLY OF THE BEST QUALITY!

No Butter-Maker can Afford to be Without it!!

FROM THE N. Y. TRIBUNE.

"A new churn has appeared, which, we believe, will give greater satisfaction than any of its almost innumerable predecessors. Hitherto we have found no substitute for the old hard-working, but effective dasher churn; but one has, we think, at last been invented. This new churn will make more and better butter, from a given quantity of cream, than any other we have ever seen, and in a reasonable time."

Reference is made to the following gentlemen among many others who have used the Air-Pressure Churn the past season, and who give it their unqualified approbation:

- Wm. Cullen Bryant, Esq., Roslyn, L. I.
- Solon Robinson, Esq., Hunt's Bridge, Westchester Co., N. Y.
- Andrew B. Hammond, Chestnut Ridge, Dutchess Co., N. Y.
- Henry C. Hoag, Quaker Street, Schenectady Co., N. Y.
- D. A. McFarland, Salem, Washington Co., N. Y.
- Chas. Alden, Newburgh, Orange Co., N. Y.
- R. T. Hume, Esq., Hobart, Delaware Co., N. Y.
- J. Handley, Milton, Ulster Co., N. Y.
- Luther Fowler, Mt. Kisco, Westchester Co., N. Y.
- Lewis Sherrill, Greenvale, Greene Co., N. Y.

Send for a circular. Liberal discount to Agents.
Address all orders to the

AIR-PRESSURE CHURN Co.,
Nos. 182 and 184 Greenwich St., New York.

GREAT AUSTIN SHAKER SEEDLING STRAWBERRY.

THE LARGEST STRAWBERRY IN THE WORLD! Amateurs consider this seedling the greatest acquisition to our small fruits ever introduced. A monster in size, wonderfully prolific, and of the finest flavor. We are now prepared to take orders to commence delivering plants in August in rotation as ordered. Address either

CHAUNCEY MILLER, Albany, N. Y., Shaker Trustee,
OR WM. S. CARPENTER, 465 Pearl St., N. Y.

WE OFFER THE FOLLOWING CERTIFICATE:

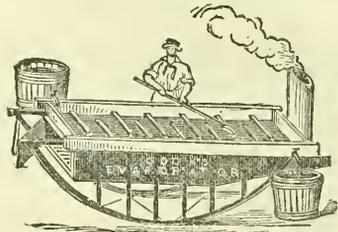
We, the undersigned, having ordered largely of the *Austin Seedling* in May last, with the assurance that our money would be refunded if not satisfied, after seeing the fruit, beg leave to report, that we have visited Waterville, the Shaker settlement, where the *Austin* is now fruiting. We found it growing in the most common way, in masses, and not in hills, without any particular care, and much injured by the drouth; yet the great productiveness and uniform large size and fine flavor, induces us to consider the *Austin* as one of the best varieties in cultivation, and a great acquisition to our small fruits. We found the *Austin* averaging larger than the *Wilson's Albany*, and about as productive; and from appearances will continue to fruit till the middle of July.

JOHN C. THOMPSON, Tompkinville, Staten Is., N. Y.,
JAMES L. LOCKWOOD, Stamford, Ct.,
EDWARD BISHOP, Stamford, Ct. Aug.—1*

500,000 APPLE GRAFTS—Put up in the best manner and ready for delivery by 15th of March next. Price, \$6 to \$5 per 100. Aug.—1*

BARNALY, TEAS & SHEPHERD, Raysville, Ind.

COOK'S PORTABLE



SUGAR EVAPORATOR,
For Making Sorghum Sugar.

TWO YEARS' TEST has proven this Machine not only to be an entire success, but to be

The Only Evaporator which can Make Sorghum Sugar Successfully.

It is very simple and beautiful in its operation. It IS A PERFECT SELF-DEFFECATOR, and dispenses with Lime, and chemicals for clarifying. It is

The Most Rapid Evaporator in the World!

Is portable; economizes fuel; needs no brick arch, and NEVER FAILS TO GIVE PERFECT SATISFACTION.

PRICES, &c., OF EVAPORATOR.

- No. 2, Pan 45 by 72 in., galv. iron, \$45; same size, copper, \$65.
- " 3, " 45 by 90 " 55; " " 75.
- " 4, " 45 by 103 " 65; " " 85.

Weight, without Brick. Capacity for boiling good Cane Juice.

- No. 2.....245 lbs. No. 2, about 2 bbls. per hour.
- " 3.....280 " " 3, " 3 " "
- " 4.....330 " " 4, " 4 " "

TESTIMONIALS.

- "Operates admirably."—*American Agriculturist.*
- "Entire success."—*Cleveland Plaindealer.*
- "Very valuable invention."—*Scientific American.*
- "Makes actual, veritable sugar."—*N. Y. Tribune.*
- "The most successful."—*Ohio Cultivator.*
- "Working wonders."—*Milwaukee Democrat.*

The following are the names of a few of the many who have made Sorghum Sugar equal in appearance and flavor to the best New Orleans:

- O. N. Brainard, Marion, O.; Enoch Payne, Springfield, Ill.;
- Isaac Karsner, Florida, O.; J. Q. Beattie, DeFiance, O.; John Richards, Tecumseh, Mich.; John Reed, Mansfield, O.; H. Mansfield, Lexington, O.; W. Carothers, Lexington, O.; E. S. Raker, Locust Corner, O., &c. &c.

BLYMYUS. BATES & DAY,
MANSFIELD, OHIO.

Send for a Circular. Aug.—1t

SMALL FRUITS.

WE have an immense stock of SMALL FRUITS, for sale during the Autumn of 1860 and Spring of 1861.

In addition to the more common sorts of Native Grapes, we have over 25,000 plants of such desirable sorts as *Delaware, Concord, Diana, Rebecca, Hartford Prolifera, Early Northern Muscadine, Logan*, and 20 other sorts—strong vines, for out-door culture. Of Foreign Grapes, we have 35 sorts, one to two years old, for Hot or Cold Vines, or for fruiting in pots.

An extensive stock of each of the common sorts of Currants, one or two years old, and fine one year old plants of *White Grape, Victoria, Cherry*, &c.

Fine and well grown Gooseberry plants, of the *American* and *Houghton Seedling*, which never mildew, as well as the best English sorts most suitable for this climate.

A great stock of Raspberries, such as *Red Antwerp* (Hudson River), *Yellow Antwerp, Orange, Franconia, Knevelt's Giant*, &c., including several thousand of the Autumn-bearing kinds, *Belle de Fontenay, Marvel of 4 Seasons*, and others.

Strawberries—The most extensive stock of saleable plants and varieties—comprising over 60 sorts—in the Union.

Fine Blackberries—*New Rochelle* and *Dorchester*, in large quantities.

Also, Figs, Filberts and Mulberries. Orders from Nurserymen, Dealers, and others who may wish to buy in large quantities, as well as those who may favor us with the smallest orders, will be executed with care and dispatch.

CATALOGUES containing description, with prices at retail, and No. 4 Catalogue, offering plants in large quantities sent on application containing a postage stamp for each.

FROST & CO.,
Proprietors of the Genesee Valley Nurseries,
August, 1859.—3t Rochester, N. Y.

Trees! Trees! Trees!

FOR THE AUTUMN OF 1890.

GENESEE VALLEY NURSERIES,

ROCHESTER, N. Y.

THE subscribers, grateful for past favors, and encouraged with a larger and better assortment than ever, ask the attention of Nurserymen, Dealers and Planters, to their immense stock of well-grown Trees and Plants, consisting of—

Apple Trees—STANDARD AND DWARF—Strong and healthy, with the King of Tompkins Co. and other good sorts in large supply.

Pear Trees—DWARF—A splendid stock, two and three years; these, strong and healthy trees, of the most approved sorts, on the quince.

Pear Trees—STANDARD—A large and fine assortment of the most desirable kinds.

Cherry Trees—STANDARD AND DWARF—Two and three years; a fine stock, and beautiful trees. Early Richmond by the 100 or 1000.

Peach Trees—One year. PLUM, two years. ORANGE QUINCE.

Apples and Nectarines.

Currents—Red and White Dutch, Victoria, Cherry, White Grape and other sorts.

Gooseberries—Houghton Seedling, and the best English sorts.

Raspberries—Large quantities of such kinds as Orange, Belle de Fontenay, Franconia, Antwerp, &c.

Blackberries—Lawton largely; Dorchester and Newman's Thornless.

Kiuhobad—Myatt's Limous, Calhoun's Mammoth, Downing's Colonial and other varieties.

Grape Vines—Delaware, Diana, Concord, Hartford Prolific, Rebecca, Logan, and many other new and old sorts in large quantities; some plants, one and two years old, grown in the open air and in large pots under glass. Also,

FOREIGN VARIETIES—For cultivating under glass; of the best sorts, such as Stockwood, Golden Hamburg, Bowwood Muscat, Muscat St. Laurent, Black Hamburg, Zingindal, Royal Muscadine, and 50 others of the best kinds, one and two years old. And for

ORCHARD-HOUSE CULTURE—We have a fine lot of these in extra large pots, for *immediate planting*.

Evergreens—Norway Spruce, Balsam Fir, Scotch, Norway, Austrian and White Pines, Red Cedar, American and Siberian Arbor Vite, Junipers, &c.

Deciduous Trees and Shrubs—Horse Chestnut, Mountain Ash, European and American Linden, Maples, American Chestnut, American and European Ash, Judas Tree, Laburnum, Snowball, Purple Fringe, Albiciss, Spiraeas, &c.

Roses—Climbing and Hybrid Perpetuals; a fine assortment of strong plants.

Hedge Plants—American Arbor Vite, Red Cedar, Privet, Honey Locust, &c.

Stocks for Nurserymen—Angers Quince, Pear, Plum, Mazzard and Mahaleb Cherry, one year, and Apple Stocks, two years.

Packing will be done in the best manner for all parts of the country. Descriptive Catalogues furnished; Wholesale Catalogues in August.

Geneva, Ontario Co., N. Y., Aug. 1, 1890.—21
T. C. MAXWELL & BROS.

GENEVA NURSERY,

GENEVA, N. Y.

THE Proprietors of this old established Nursery take pleasure in offering for sale the coming Fall a large and fine stock of **Fruit and Ornamental Trees, Shrubs, Roses and Green-House Plants.**

We invite particular attention to our stock of Standard and Dwarf Pears and Standard Apples, having a very large stock, all grown on a gravelly loam of upland. Orchardists should bear this in mind.

Grape-Vine Department.—Having increased our facilities for propagating, we have created three very large glass houses, enabling us to grow vines at a much reduced price by the dozen or thousand, mostly of the new and popular sorts—such as *Delaware, Rebecca, Concord, Diana, Hartford Prolific*—all hardy, for out door culture. Also, Foreign sorts for culture under glass.

We invite all to call and examine our stock before purchasing elsewhere. Trees will be packed in damp press for transportation.
Address W. T. & E. SMITH,
Aug.—21 Geneva, N. Y.

FEMALE AGENTS WANTED.

3 A DAY.—Agents Wanted to travel for the MAMMOTH "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts., for a specimen copy, to MARIE LOUISE HANKINS & Co., Publishers, New York City. July—4

FRIST & CO., Proprietors of the *Genesee Valley Nurseries*, Rochester, N. Y., offer for sale for the autumn of 1890 and Spring of 1891, one of the largest stocks of **STANDARD AND DWARF FRUIT TREES, SMALL TREES, ORNAMENTAL TREES, SHRUBS, ROSES, PLANTS, &c.** in the United States. The Grounds at the present time contain over

Three Hundred and Fifty Acres,

devoted entirely to the cultivation of Trees and Plants. The stock is so extensive in its different departments, that they are enabled to furnish the entire orders of their correspondents of the different kinds, of the best quality, and at the lowest market prices. Trees and Plants are packed in such a manner that they will reach the more distant parts of the United States in perfect condition.

Orders from Nurserymen, Dealers and others, who may wish to purchase in large quantities, are executed with care and dispatch, as well as those who may favor them with the smallest orders.

CATALOGUES.

The following Catalogues contain full particulars of the stock in the different departments, and will be furnished gratis to all applicants who enclose a postage stamp for each:

- No. 1—*Descriptive Catalogue of Fruits.*
 - No. 2—*Descriptive Catalogue of Ornamental Trees, Shrubs, &c.* for the Autumn of 1890 and Spring of 1891.
 - No. 3—*Catalogue of Dahlias, Verbenas, Green-House and Bedding Plants.*
 - No. 4—*Wholesale Catalogue or Trade List* for Nurserymen and Dealers, and others who may wish to buy in large quantities, for Autumn of 1890.
 - No. 5—*Catalogue of Flowering Bulbs.*
- Address FRIST & CO.,
Aug.—31 Genesee Valley Nurseries, Rochester, N. Y.

WM. R. PRINCE & Co., FLUSHING, N. Y.,

WILL SUPPLY

150 VARIETIES OF STRAWBERRIES,

As per priced Descriptive Catalogues, packed securely, the following, \$1 per 100, \$5 to \$7 per 1000:

Alpine Wood (red and white), Boston Pine, Furr's Pine, Crimson Cone, Dundee, Early May, Early Scarlet, Geneva, Hooker, Hovey, Hudson, Iowa, McAvoy's Superior, McAvoy's No. 1, Monroe Scarlet, Moyamensing, Orange, Prolific, Pembody, Prolific Hautbois, Rival Hautbois, Scarlet Cone, Walker, Wilson's Albany, \$5 per 1000.

These \$1.50 per 100, \$7.50 to \$10 per 1000: Alpine Monthly (red and white), Durtce's Seedling, Jenny Lind, Jessie Reid, Gideon Pine, Longworth's Prolific, May Queen, Red's No. 1 and Gold S. ed, Rivers' Eliza Seedling, Prince's Scarlet Magistrate, \$7 1/2 per 1000; Scarlet Melting, Tollope's Victoria, Triomphe de Gand, Western Queen.

These \$2 per 100: Boyden's Mammoth, Charles' Favorite, Cutter's Seedling, Cornie pin, Felipe, Globe Scarlet, Imperial Scarlet, Ladies' Pine, Malvina, Myatt's Prolific, Montreuil, Stewart, Triumphant Scarlet, Voorhis, Ward's Favorite.

The following by the dozen: Austing's Seedling, \$3; Fillmore and Oscar and Prince's Scarlet Chimax, Prince's Excelsior, \$2; the following \$1: Bartlett, Chorton Prolific, Dabem, Downer's Prolific, Elizabeth, Lady's Finger, Le Baron, Prince's Excelsior, Sir Harry, Randolph Pine; these \$1.50 per dozen: Minerva, Perfumed Pine, Prince's Globe.

Special: Black Prince, Cushing, Brighton Pine, Jenney's Seedling, Ohio Mammoth, Marylandia, Pennsylvania, and 75 others. Aug.—11

STRAWBERRIES! STRAWBERRIES!!

"By their fruits ye shall know them."

WHAT Strawberry shall I plant? Why! the *Wilson's Albany*. Why? Because it is the most productive, the largest, and finest berry out. In fact it is the "fashionable" berry. Originated at the Albany Nursery, where plants can be procured by addressing JOHN WILSON, Albany, N. Y.

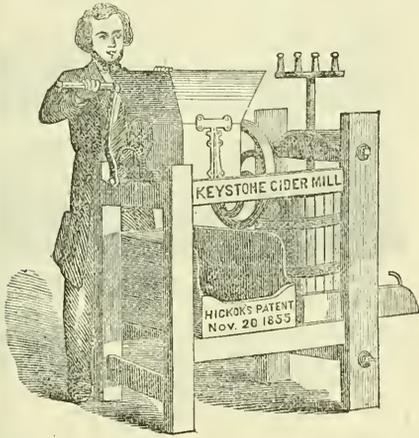
Price per 100 plants \$1
do 1000 do 8
Liberal discount to the trade. Aug.—21

NURSERY TREES FOR SALE.

HAVING been engaged in the Nursery business for the last seven years, our grounds now occupy over 25 acres of the most popular kinds of **FRUIT AND ORNAMENTAL TREES**. We therefore solicit the attention of Planters, Nurserymen and Dealers in Trees to our large and fine stock on hand for the Fall trade. Our personal attention will be given to proper boxing and packing to suit customers. JAYNE & PLATMAN.
Benton, Yates Co., N. Y., Aug. 1, 1890.—21

\$150 PER MONTH, AND NO HUMBURG.—AGENTS WANTED IN EVERY TOWN. It is no Patent Medicine or Book Agency, but something new and of real value. Particulars sent free. Address Aug.—11* J. S. PARDEE, Binghamton, Broome Co., N. Y.

HICKOK'S PATENT PORTABLE
Keystone Cider & Wine Mill.



THIS admirable machine is now ready for the fruit harvest of 1860. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines. It has no superior in the market, and is the only mill that will properly grind Grapes. Price \$40. For sale by all respectable dealers
Address the manufacturer, **W. O. HICKOK,**
Aug.—31 Eagle Works, Harrisburgh, Pa.

A New and Great Book on Africa.

Travels, Researches, and Missionary Labors
IN EASTERN AFRICA,

During an Eighteen Years' Residence there.

BY REV. DR. J. LEWIS KRAFF,

Late Missionary in the service of the Church Missionary Society in Eastern and Equatorial Africa,

With valuable Appendices, and a concise summary of the results of African Explorations.

With map. One volume of 500 pages. Price \$1 25.

BOOKS of African travel are interesting. That enormous country, with an assumed population of one hundred and fifty millions of souls, is still, notwithstanding the explorations of recent travelers, in a great measure, an unknown land. The present volume details, with considerable minuteness, the result of Dr. Kraff's missionary labors and geographical researches in Eastern Africa, during eighteen years, and will be found to add not a little to the sum of knowledge respecting Africa, furnished by previous works. It is *truthful, readable and interesting.* It is pronounced equal in point of interest and importance to the great works of Dr. Livingstone, Dr. Barth, while covering an entirely different ground from either of them.

This valuable work is for sale by all booksellers, or will be sent, postpaid, on receipt of price, by the publishers.

TICKNOR & FIELD,

Aug.—11 PUBLISHERS, BOSTON.

BOOK AGENTS, PLEASE READ.

"THE GOOD TIME" for your business has now come. With good crops and good prices, good sales are certain. Please send for **The Private Circular of the Auburn Publishers Co.,** which contains the most valuable Subscription Books, and offers the BEST INDUCEMENTS of any firm in the country. Students, Teachers, Clerks, or any who desire profitable employment near home and free from risk, that will pay them from \$3 to \$5 per day, should write at once to

Aug.—11 **E. G. STORKE,**
Publishing Agent, Auburn, N. Y.

TWO FARMS, OF 100 ACRES EACH, FOR SALE—

Situated two miles from Ingersoll, on Great Western Railway. Superior buildings—high state of cultivation—well watered—good and healthy locality, &c. For terms, apply to
Aug.—11 Messrs **WRIGHT,** Ingersoll, C. W.

CIDER PRESS SCREWS—Five feet long, four inches in diameter. These powerful screws will bring out a third more juice than portable presses. Get the best. Made by **L. M. ARNOLD,** Poughkeepsie, N. Y. Foundry. Aug.—11*

JOHN DONNELLAN & Co.,

PROPRIETORS OF THE

Rochester & Lake Avenue Nurseries,

ROCHESTER, N. Y.

OFFER for sale this coming Fall a much larger stock than usual of very fine, thrifty grown stuff, at wholesale and retail, comprising in part as follows:

- APPLES—Standard and Dwarf;
- PEARS—Standard and Dwarf;
- CHERRIES—Standard and Dwarf;
- PEACHES, PLUMS, APRICOTS, NECTARINES, &c., &c.
- GRAPES—*Diana, Concord, Rebecca and Delaware.*
- CURRENTS—One dozen new varieties; also *Cherry* and other varieties in large quantities.
- GOOSEBERRIES—Imported English varieties; good, strong plants.
- RASPBERRIES AND STRAWBERRIES,
ASPARAGUS and RHUBARB,
- LAWTON BLACKBERRY,
HORSE CHESTNUTS—Of all sizes.
- EVERGREENS—From one to nine feet, as follows: *Balsam, Norway and Black Spruce, American Arbor Vitae.*
- ROSES } 20,000 good strong plants of HYBRID PEPPERTALS and MOSES, BOURBONS and TEAS.
- PÆONIAS—Donnellan's new seedling, *Chinese Pæonias*, at reduced prices.

Seed of the above variety, in 50 cents packages, sent free to any part of the United States.

Old varieties by the 100, viz: *Whitgate, Dumeau and Fragrans.*

A LARGE COLLECTION OF

Herbaceous Plants, Green-House Plants, &c., &c.

The above mentioned stock will be found as represented, and we particularly desire those persons purchasing largely to see our PRICES. Catalogues (Nos. 1 and 2,) sent free on receipt of one-cent stamp for each. Persons ordering from a distance may depend on having their stuffs packed with care.

Address **J. DONNELLAN & CO.,**
Aug.—21 Rochester, N. Y.

U. S. TENT AND FLAG MANUFACTORY.

No. 42 Exchange Street, Rochester, N. Y.

TENTS to rent of the following sizes, suitable for the purposes designated:

For Agricultural Fairs, Conferences, Political or other large Gatherings.

- 80 ft. by 110 ft. \$6 ft. diameter.
- 60 ft. by 90 ft. 70 ft. "
- 50 ft. by 80 ft. 60 ft. "
- 15 ft. by 20 ft. fancy. 50 ft. "

For Camp Meetings, Military Encampments, Pic Nics, Fishing Excursions, &c.

- 24 ft. by 30 ft. | 12 ft. by 17 ft.
- 16 ft. by 24 ft. | 9 ft. by 12 ft.

Flags furnished with Tents, when required. Parties wishing to rent, will please address the proprietor, stating what the Tents are to be used for. Also the facilities for transportation. Address **JAMES FIELD,** Box 761,
June, 1860—31 Rochester, N. Y.

N. B. Several large second-hand Tents for sale cheap—one tent 60 by 90—ten feet wall with seats.

SELECT STRAWBERRIES.

FROST & CO., Genesee Valley Nurseries, Rochester, N. Y., offer for planting in August and September, the most extensive stock and collection of STRAWBERRY PLANTS in the United States.

The following fine leading varieties are offered—delivered at any designated place in Rochester, and packed so that they will reach distant destinations in perfect order—for 100 plants, \$2; for 500, \$7.50; for 1,000, \$10. Larger quantities at less rates.

- Brighton Pine,*
- Burr's New Pine,*
- Filbasket,*
- Genesee,*
- Hooker,*
- Hovey's Seedling,*
- Jenny Lind,*
- Large Early Scarlet,*
- Triomphe de Gand,*
- Victoria (Trollope's),*
- Wilson's Albany.*

CATALOGUES will be forwarded, giving full particulars of the above and 43 other sorts, on receipt of a postage stamp.

Address, **FROST & CO.,**
Aug.—11 Rochester, N. Y.

FAIRBANKS'



STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.
Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular. **FAIRBANKS & Co.,**
189 Broadway, New York.

S. W. STEVENS, Traveling Agent. Post Office address, Rochester, N. Y. June—6t

WM. PATERSON'S

Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the Manufacturer's agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the maker's name, to whom orders sent with cash or satisfactory references, here or in New York, will be promptly executed.

The aforesaid article consists principally of charred bones, dissolved by sulphuric acid, with a large proportion of Peruvian Guano, and other important ingredients.

The largely increased sales for the last six years, with the unsolicited Reports of Agents, &c., attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently decidedly more profitable.

It has been the aim of the Manufacturer to make this Manure what it is avowed to be, and the public may rely assuredly that it will continue to be uniform in quality and profitable to the buyer.

Circulars, with particular instructions for use, will be sent by mail when requested, or on application to his agents.

May—6t **WM. PATERSON.**

JUST PUBLISHED:

THE YOUNG FARMER'S MANUAL, By S. Edwards Todd. Containing Practical Directions for Laying out and Working the Farm, and how to Erect Buildings, Fences, Farm Gates, &c. The work also embraces

THE FARMER'S WORK-SHOP,
With full directions for selecting and using all kinds of farm and shop-tools. The whole illustrated by 200 original illustrations. 1 vol., 12mo.; 459 pages. Price \$1.25.

ALSO, RECENTLY PUBLISHED:

THE YALE AGRICULTURAL LECTURES. Delivered at the Agricultural Convention, New-Haven, February, 1860. 12mo. Cloth. Price..... 50c.

THE COMPREHENSIVE FARM RECORD. Arranged for entering all the operations of the farm for 25 years.. \$3

THE ORCHARD HOUSE; Or, How to CULTIVATE FRUITS UNDER GLASS. By Thomas Rivers 40c.

HUNT'S PATIENTS' AND PHYSICIANS' AID. A Manual for every family \$1

COUSIN MAUDE AND ROSAMOND. A new volume by Mrs. Holmes. \$1

CATALOGUES describing a full assortment of AGRICULTURAL Books sent free to any address.

C. M. SEXTON, BARKER & CO.,

No. 25 Park-row, New York,

Agricultural Book Publishers, and Proprietors of *The Horticulturalist*. July—2t

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Cotswold Sheep, Markham P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price \$5 per pair. July—1y

TILES AND PIPES FOR UNDERDRAINS.

THE Rochester Brick and Tile Manufacturing Company are prepared to furnish Tiles and Pipes of all sizes for under-draining land, cellar drains, &c., at the following prices:



	Per 1000 pieces.	Per rod.
2 inch Sole Tile,.....	\$10 00	20c.
3 " " ".....	15 00	37½
4 " " ".....	20 00	56
5 " " ".....	50 00	75
8 " Round Tile,.....	80 00	1 25
2 " Horse Shoe Tile,.....	8 00	
3 " " ".....	12 00	
4 " " ".....	16 00	25
5 " " ".....	25 00	37½
6 " Pipe,.....	60 00	1 00
10 " " ".....	100 00	1 75

The Tiles are strong, hard burned, and of very superior quality. Persons wishing Tiles will find it to their interest to call at the office of the Company, 22 Buffalo street, Rochester, before purchasing elsewhere.

A large quantity of Brick always on hand.

For further information, address

June, 1860.

W. OTIS, Superintendent,
Rochester, N. Y.

Turnip Seed! Turnip Seed!

J. M. THORBURN & Co.,
15 John Street,

New York.

OFFER to the trade and others the following varieties of TURNIP SEED, all of which they warrant of the same superior quality as have heretofore given such universal satisfaction:

EARLY WHITE DUTCH.....	per lb.,	75 cents
RED-TOP STRIP LEAF.....	" "	75 "
RED-TOP.....	" "	75 "
WHITE STRAP LEAF FLAT.....	" "	75 "
WHITE FRENCH, (extra).....	" "	75 "
LARGE WHITE GLOBE.....	" "	50 "
LARGE WHITE NORKFOLK.....	" "	50 "
LONG WHITE TANKARD.....	" "	50 "
SWAN'S EGG.....	" "	75 "
VERTUE'S LONG WHITE.....	" "	75 "
GREEN GLOBE.....	" "	50 "
WAITE'S ECLIPSE.....	" "	50 "
YELLOW MALTA.....	" "	75 "
YELLOW FINLAND.....	" "	75 "
YELLOW STONE.....	" "	75 "
ROBSON'S GOLDEN BALL.....	" "	75 "
YELLOW ABERDEEN.....	" "	50 "
LONG YELLOW FRENCH.....	" "	75 "
DALE'S HYBRID.....	" "	50 "
IMPROVED RUTA BAGA, (AMERICAN).....	" "	75 "
SKIRVING'S ".....	" "	50 "
PURPLE-TOP ".....	" "	50 "
MARSHALL'S PURPLE-TOP RUTA BAGA.....	" "	50 "
BULLOCK'S HEART ".....	" "	50 "
DICKSON'S IMPROVED ".....	" "	50 "
LAING'S "..... (extra).....	" "	50 "
ASHCROFT'S ".....	" "	50 "

ALSO—

ROUND and PRICKLY SPINACH.....	each	\$ 50 "
CORN SALAD or PETTICOUS.....	" "	\$1 00
ROSE COL'D CHINESE WINTER RADISH, per oz., 20c; per lb.,		\$1 50.

J. M. THORBURN & Co.,

15 John Street, New York.

July—2t

DESIRABLE FARM FOR SALE IN VIRGINIA.—250 acres, 6 miles from Fredericksburg. 1600 Apple, Peach and Dwarf Pear Trees; one acre each Raspberries and Strawberries. Soil clayey loam, clay subsoil. Climate pleasant, and location as healthy as any in the United States. Price, \$25 per acre. Cause, going South. **ABRAM VAN DOREN,**
June—3t Falmouth, Va

HONEY! HONEY!—\$75 per month. Don't fail to send your address to **G. G. BERRY,** North Strafford, N. H.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

“A STITCH IN TIME SAVES NINE.”

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mucilage, being vastly more adhesive.

“USEFUL IN EVERY HOUSE.”

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address HENRY C. SPALDING & CO.,
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household. Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by HENRY C. SPALDING & CO.,
48 Cedar Street, New York.
Address Post-Office, Box No. 3,600. Dec., 1859.—1y

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and B. onze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy.

REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to JAMES G. DUDLEY, General Western Agent, April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent, less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by JAMES G. DUDLEY, April, 1860. 93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent, April, 1860. at 93 Main street, Buffalo, N. Y.

A. BROWER'S

Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather, impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. A. BROWER & CO., May—6t. 4 Reade Street, New York.

RUSSIA OR BASS MATS—Selected expressly for budding and tying. GUNNY BAGS, TWINES, HAY ROPE, &c., suitable for Nurserymen and Farmers, for sale in lots to suit, by

D. W. MANWATERING, Importer, Sept., 1859.—1y* 248 Front Street, New York.

AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, secretary. J. K. CHAPPELL, Agent.

June—1f 64 Exchange Street, Rochester, N. Y.

BOOK AGENTS WANTED.

FOR CIRCULARS address GEORGE F. TUTTLE, May, 1860.—4t No. 100 Nassau Street, New York.

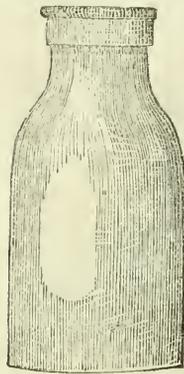
SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood SUFFOLK PIGS, bred from their importations of 1852, 1853, 1859, and their descendants.

Address JOSIAH STICKNEY, Boston, Mass. July—5t ISAAC STICKNEY,

HORN-HORNS—Several young Bulls and Heifers, SUFFOLK SWINE—all ages. For sale by T. L. HARRISON, July—6t* Morley, St. Lawrence Co., N. Y.

GEO. F. CURWEN West Haverford Delaware County, Pa. Breeder of DEVON CATTLE and ESSEX HOGS. May 4,

40 SUPERIOR SPANISH MERINO BUCKS for sale by June—6t GEO. CAMPBELL, West Westminster, Vt.



**FRESH FRUITS
ALL THE YEAR!
THE YEOMANS'
FRUIT BOTTLE!**

FOR Utility, Convenience, Economy and Safety is unequalled for preserving Fruits in a fresh state, in any climate, an indefinite time.

"Having used these Bottles we find them exceedingly convenient, and just the thing needed."—J. J. THOMAS, in Register of Rural Affairs.

For Descriptive and Price Circulars, address the Proprietor at Walworth, Wayne Co., N. Y.
May—if T. G. YEOMANS.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer and Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address if **JOSEPH HARRIS, ROCHESTER, N. Y.**

CONTENTS OF THIS NUMBER.

Farm Visits.....	238
Winter Barley.....	234
A few Thoughts on Wheat Culture.....	236
The Wheat Midge.....	238
Is it best to Hill Corn?.....	239
English Agriculture.....	239
Cure for the Scratches.....	241
Design for a complete Farm-house.....	242
The amount of Plaster in Clover.....	243
A Visit to Canandaigua.....	243
A Stock Farm in Canada.....	244
Wheat of the South.....	245
Shocking Wheat in the Harvest Field.....	245
Notes from Canada.....	246
Grinding Corn too Fine.....	246
Big Calves.....	246

HORTICULTURAL DEPARTMENT.

Genesee Valley Horticultural Society.....	247
Large Strawberry.....	247
Fruit Growers' Society of Western New York.....	248
Notes on Fruits around Cincinnati.....	250
Large Cucumber.....	251
How to keep Grapes.....	251
The Battle of the Bugs.....	251
Wine-making in Transylvania.....	252
Keeping Apples.....	252

EDITOR'S TABLE.

Cash Prizes.....	253
American Pomological Society.....	253
Upland Rice.....	253
Notes on the Weather.....	253
Famine Prices.....	254
Wood Cuts.....	254
The Weather and the Crops.....	254
Geneva Nurseries.....	254
Sale of Thorough-bred Cattle.....	254
American Mowing Machine in England.....	255
Items, Notices, &c.....	255
Inquiries and Answers.....	255
List of Agricultural Fairs.....	256

REVIEW OF THE MARKETS.

Market Reports.....	258, 259
---------------------	----------

ILLUSTRATIONS.

Winter Barley.....	235
Mediterranean Wheat.....	236
White Mediterranean Wheat.....	237
Early May Wheat.....	237
Soules Wheat.....	237
Canadian Blue Stem Wheat.....	237
Design for a complete Farm-house.....	242

**TO THE FRIENDS OF THE
GENESEE FARMER.
EXTRAORDINARY OFFER!**

Subscriptions for the Half Volume.

Desirous of reaching the large number of farmers who do not now take a good monthly agricultural journal, we have concluded to take subscriptions to the coming half volume (July to December inclusive), at the following low rates:

TERMS FOR THE HALF VOLUME.

We will send the *Genesee Farmer* for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for \$1, and a copy of our beautiful 25-cent book, the *Rural Annual and Horticultural Directory*, prepaid by mail to the person getting up the club; eight copies for \$1.50, and a *Rural Annual*, prepaid by mail, to the person getting up the club; sixteen copies for \$3, and a *Rural Annual* and an *extra copy of the Farmer* for the year, or two for the half volume, to the person getting up the club.

CASH PREMIUMS FOR AGENTS

Who Get up the Largest Clubs of Subscribers for the Half Volume.

In order to stir up a little emulation among our friends who are disposed to form clubs, and also to reward them for their labor we offer the following liberal list of Cash Premiums:

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 18 1/2 cents each), before the 15th day of October, 1860.
2. FIFTEEN DOLLARS to the person who shall send us the second highest number, as above.
3. TEN DOLLARS for the third list.
4. NINE DOLLARS for the fourth.
5. EIGHT DOLLARS for the fifth.
6. SEVEN DOLLARS for the sixth.
7. SIX DOLLARS for the seventh.
8. FIVE DOLLARS for the eighth.
9. FOUR DOLLARS for the ninth.
10. THREE DOLLARS for the tenth.
11. TWO DOLLARS for the eleventh.
12. ONE DOLLAR for the twelfth.

Our Agents, and Competitors for the above Premiums will remember that our terms are always IN ADVANCE.

It is not necessary that members of a club should be all at the same office. We will send to as many different post-offices as there are members in the club, if desired.

Subscription Money may be sent by mail at my risk, and you need not "register" the letters.

Address **JOSEPH HARRIS,**
PUBLISHER AND PROPRIETOR,
ROCHESTER, N. Y.

June 1, 1860.

THE GENESEE FARMER,
A MONTHLY JOURNAL OF
AGRICULTURE AND HORTICULTURE,
IS PUBLISHED AT ROCHESTER, N. Y.,
By **JOSEPH HARRIS.**

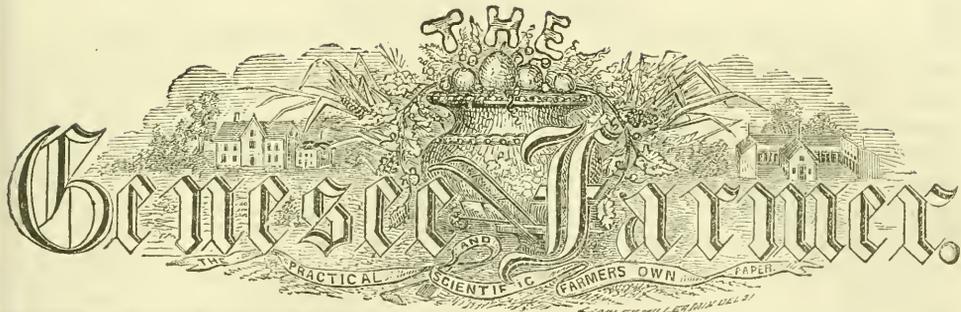
It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR: Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants. The address of papers can be changed at any time. Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.
Address **JOSEPH HARRIS,**
Publisher and Proprietor, Rochester, N. Y.



THE Genesee Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., SEPTEMBER, 1860.

No. 9.

A DAY AMONG THE DAIRIES.

DURING the past month we spent a few days among the dairy farmers of Herkimer County. The northern counties of this State are justly celebrated for the excellence of their cheese, and Herkimer holds the first rank among her sister counties.

We had supposed that the excellence of Herkimer County cheese was due in a good degree to the excellence of the rich natural pastures of this district; but, while this is doubtless the case to some extent, the pastures, generally, were by no means of unusual excellence. True, we did not visit the best portions of the county, yet we are constrained to believe that there is room for great improvement in the management of the pastures of this far-famed dairy district. Much may be done—and considerable has already been done—by top-dressing. Muck of excellent quality is easily accessible, and we believe those who have used it, either composted with ashes, lime and salt, or with barnyard manure, find it exceedingly beneficial. The old pastures are generally considered to afford the sweetest herbage, and they may unquestionably be kept up by the use of top-dressings, without breaking up and re-seeding.

Here, as elsewhere, there is room for improvement in the selection of grass seeds. Timothy, or birds-grass, is most excellent, but there is no reason why we should confine ourselves to this single grass in re-seeding. In old pastures there is a great variety of grasses, and this is one reason of their superiority, and it would be well to take advantage from nature in the formation of our pastures. The numerous small streams in some sections afford easy facilities for irrigation, but with a few exceptions, no advantage is taken of them. There can be no doubt that, by a simple process of irrigation, the produce of hay on many farms might be doubled,—and the main item of expense on these dairy farms is to provide hay or other fodder

for the winter months. On making this observation to a farmer, he replied: "Yes; you have to have a fork in your hand all the year round, either pitching hay into the barn, or pitching it out."

There is some attention paid to the cultivation of root crops. Nowhere have we seen better rutabagas, though carrots seem to be the favorite crop. We did not see a single plot of mangel wurzels. Corn for fodder is grown to a considerable extent. Oats are very extensively grown, and here, as everywhere this season, the crop is very heavy. Buckwheat was formerly grown more extensively than at present. It is thought to impoverish, or "sour" the land.

We heard it remarked by an intelligent farmer, that the soil was deteriorating, and he thought the census would show a diminished productiveness. Be this as it may, there is no necessity for such a result, and we feel sure that the intelligent dairy-men of this district will devise means to keep up the fertility of their farms. The soil is not *exhausted*. But in agriculture we are either improving or retrograding. We can seldom remain stationary. The trouble at present is that we run over too much land. Our operations must be more concentrated. Cultivate the land better, keep more stock, feed higher, make more and richer manure, and the land will be more productive. This can be done, and done with profit. We were surprised at the small number of cows kept on a given quantity of land. Cheese commands a good price, and we are confident a higher system of feeding might be introduced with profit.

The process of making cheese here adopted is admirable for its simplicity and dispatch, as compared with that practiced in Cheshire and other districts in England. The night's milk is placed in the cheese-vat, and kept as cool as possible. After the morning's milk is added, the whole is raised to the proper temperature—either by heating a portion of the morning's milk, or, what is better, by applying

steam to the bottom of the tin milk-vat. Sufficient rennet is then added to set the cheese in about 40 minutes. When the cheese is set, the coagulated curd is cut into small pieces with a long, four-bladed steel knife, which crushes the curd much less than the old-fashioned breakers, and is thus not so liable to press out the butter.

The curd is then "scalded." This is done either by heating a portion of the whey (which should not be heated to the boiling point), and pouring it into the vat till the whole is raised to the desired temperature; or when steam can be applied to the vat, it is heated in this way. The temperature varies somewhat in different dairies: thus Mr. O. S. CUMINGS, of Trenton Falls, "scalds" to 104°; Mr. A. COON, of Russia, from 108° to 110°; Mr. W. BUCK, 102° to 104°, and Mr. S. N. ANDREWS, 100° to 102°.

After the scalding, the curd is allowed to stand in the heated whey about 40 minutes, and the whey and curd is then poured on to a cloth placed on a shallow wooden vessel, with a hole in the bottom which allows the strained whey to run off. The curd is then broken up fine and salted to suit the taste—say a teaspoonful to each 10 or 12 cows. The curd is then placed in the vat and put under the press, where it remains till the next morning.

Those acquainted with the English method of making cheese will see in what respect the two processes differ. The method so imperfectly and inadequately described above, is not one-half as much labor as the Cheshire or Gloucestershire process. The method of heating the milk by the application of steam to the cheese-vat is a great improvement. Then the method of separating the curd from the whey by straining it through a cloth is much more expeditious. In Cheshire the whey is removed by pressing down a flat-bottomed pan gently on the curd in the cheese-tub and allowing it to fill. When the curd is thus partially freed from the whey, the curd is again gently broken and allowed to settle and separate and the whey is baled out slowly, the curd being placed on one side of the tub, which is slightly raised, and a board is placed on the curd with heavy weights on top to press out the whey.

The curd is then cut into pieces six or eight inches square, and again pressed with heavier weights. When as much whey as possible is removed in this way, the curd is placed in a vat and gently broken. It is then put under the press, and a slight pressure applied at first, which is gradually increased till no more whey can be pressed out. To facilitate the

flow of the whey, the cheese is pierced with skewers. This preliminary pressing occupies four or five hours. The cheese is then taken out of the press, broken up again very fine, salted, put in the vat again, and pressed under a heavy press for three or four days—clean and dry cloths being put round the cheese as the old ones become wet.

This is a tedious process, and we think some of the operations of the American process might be adopted in England with advantage. Still, on the whole, we like the Cheshire cheese the best. The essential point of difference is the "scalding." This renders less salt and less pressing necessary. There can be no doubt that the preserving action of the salt is greater in proportion to the absence of whey in the cheese when it is applied; and it is for this reason that the Cheshire dairymen press their curd before the salt is added.

HIGH PRICE OF MEAT IN ENGLAND.—The coldness of last winter and spring in England, and the consequent scarcity of cattle food, has greatly reduced the number of cattle and sheep usually fattened and brought to market, and the price of meat is unusually high. The best beef sells in London, by the carcass—according to the last quotations (Jul 21)—at 16 to 17 cents per lb.; and prime mutton at the same price. The *Mark Lane Express* say "a vast number of cattle and sheep have been actually starved to death from the scarcity of food. In Scotland and Ireland and the north of England the sheep and lambs have perished by thousands, and in Ireland, the cattle by hundreds, from positive starvation." The operatives in the manufacturing districts have been holding meetings, which they resolved to abstain from meat till the prices were lower.

SOUTH-DOWNS VS. LEICESTERS FOR CROSSING WITH THE MERINO.—An intelligent German, who attended the late JONAS WEBB'S ram-letting in England stated that "the South-downs do better in Germany than the Leicesters, when crossed with the Merino." We have known a flock of common Merinos, crossed with a Leicester ram, that produced a very profitable mutton sheep; but we think it quite likely that the South-down would be a better sheep to cross with—the cross would not be so abrupt. Will our readers give us their experience on this point?

COST OF PLOWING.—It is estimated that the cost of plowing, in England, is twelve shillings (\$3.00) per acre.

CROPS WHICH ENRICH THE SOIL.*

ONE of the great needs of American agriculture is the introduction and extensive cultivation of such plants as enrich rather than impoverish the soil. So far as ascertained, the leguminous plants—such as peas, beans, and clover—belong to this class. So also do turnips and probably other cruciferous plants, when not raised for seed. On the other hand, the cerealia—including wheat, barley, oats, rye, maize, sugar cane, and the grasses proper, such as timothy, red-top, rye-grass, etc.,—impoverish the soil. They all have starchy seeds and glassy stems. They take from the soil, from rains, dews, and the atmosphere, more ammonia than they contain when grown. On the other hand, the leguminous plants, turnips, etc., retain the ammonia; and when the plants are plowed in, or consumed on the land by animals, they increase the supply of ammonia in the soil.

All crops grown for feeding animals on a wheat farm, or for plowing under as a manure, should belong to the latter class, as much as possible. In determining which crop to raise for the purpose of feeding on the farm, we must not merely ask the simple question what crop will afford the most nutritious matter, but which will be ultimately the most profitable, taking into consideration its effect on the soil, the amount of nutritious food, and the value of the manure made by its consumption on the farm.

Where the object is to enrich the farm, it is a great waste of vegetable force to grow barley, oats, rye, corn, and the grasses, for the purpose of feeding animals on the farm. We should rather grow plants of a lower organization—plants which require less of that kind of food best suited to the growth of plants used as food for man. All will admit that to grow wheat to be fed to animals, for the purpose of enriching the soil as the primary object, would be a wasteful practice; and we believe the growth of the plants named, for this object, is wasteful also, though perhaps in a less degree.

If we can direct the attention of our readers to this subject, we believe many useful plants will soon be introduced which are now little known or cultivated in this country. For this purpose we have procured engravings of some of the most useful plants which experience indicates as belonging to that class of crops which enrich the soil.

WHITE LUPINE.—This plant has been used in Southern Europe for plowing in as a manure, since

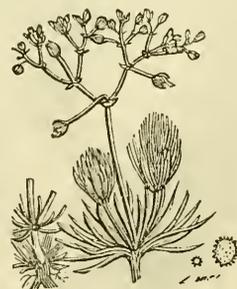
the days of COLUMELLA. We have frequently alluded to it as preëminently worthy of trial on the poor sandy soils of the Atlantic slope, especially where the climate is mild. It derives its name from *lupus*, a wolf, in allusion to its voracious qualities. It strikes its tap-roots deep in the soil, and it will flourish where many other plants would starve.

It is of very rapid growth, produces a large amount of vegetable matter, and draws from the subsoil a large quantity of alkalis. It is rarely or never injured by drouth or insects, and is admirably adapted for enriching unfruitful sandy soils; while its strong stems and roots open and ameliorate, as well as enrich, heavy tenacious clays. Mr. VILMORIN, of Paris, says it is sown in that vicinity about the middle of April, after all danger from frost is past. He says "the green manure yielded by this plant is excellent. The seeds, soaked in water, form a good cattle food, and the young plant is readily eaten by sheep."

SPURRY (*Spergula arcensis*).—No plant has been more lauded for enriching sandy soils than spurry. VON VOGT states that by its use the "worst shifting sands may be made to yield remunerative crops of rye—that the green manuring every other year not only nourishes sufficiently the alternate crops of rye, but gradually enriches the soil—and that it increases the effect of any other manure that may subsequently be put on." He adds, also, that "spurry often produces as much improvement if eaten off by cattle as if plowed in; and that, when fed upon this plant, either green or in the state of hay, cows not only give more milk, but of a richer quality." The best seed comes from Riga. It can be sown any time during the spring or summer. It is often sown after wheat or potatoes, and plowed in the following spring. It is sown broadcast at the rate of 15 lbs.



WHITE LUPINE.



SPURRY.

* At the request of a friend we republish a portion of this article from the *Farmer* of last year—adding some matter on points on which he wishes information, especially in regard to the value of spurry as a green-crop for peach orchards. Eds.

per acre. It grows with great rapidity, and two or three crops may be obtained in a season. Spurry and the white lupine are both annuals. We think spurry would prove a most valuable crop for sowing in peach orchards to be plowed in as a manure. The objection to growing clover as a green manure in peach orchards, is that the clover robs the trees of moisture during the months of May, June and July, when they are most liable to suffer from drouth and lack of plant-food. If the peach orchard was kept in bare fallow till the first of July, and cultivated sufficiently to keep down the weeds, the trees would obtain the greatest supply of moisture and plant food at the time when they are most required. Then, by sowing the spurry about the middle of July, the plants would cover the ground by the time the peaches were ready to gather; and its subsequent growth would render the ground drier by evaporating moisture through their leaves, and serve to check excessive growth in peach trees, and thus cause them to ripen up their wood better—an object exceedingly desirable in itself; but this is not all: The spurry would grow late in the fall, cover the ground all winter, and when plowed under early in the spring would furnish a large quantity of manure for the use of the growing trees. Let spurry be tried for this purpose. We have seen it stated that in some trials in Georgia, the lupine and spurry were destroyed by insects; but this may have been an exceptional case. They do well in Europe, and there is no reason why they should not do equally well in some sections of this country.

THE NEW LAWN GRASS (*Spergula pelifera*), of which so much has been lately said in the English journals, is a species of spurry. There seems to be little doubt that on heavy clay lands it will prove a very useful lawn grass, requiring no mowing and little other care except an occasional sweeping. Experiments are now in progress here to test its merits.



MEDICAGO LUPULINA.

MEDICAGO LUPULINA is another leguminous plant, a fibrous-rooted perennial, very common in dry pastures, especially if of good loamy quality, where

it forms, with other plants, a thick sward. The pods are short, black, twisted, and arrayed in oblong heads, as shown in the annexed engraving. It is not equal in nutritious qualities, perhaps, to red clover, but is valuable on dry, poor soils, where, however, it is apt to run out in a few years.



BIRD'S-FOOT TREFOIL.

BIRD'S-FOOT TREFOIL (*Lotus corniculatus*) is a prostrate perennial, common on open grassy pastures and dry places. It is a leguminous plant, equally nutritious as clover, and is instantly eaten down whenever cattle have access to it. It is one of the commonly cultivated "artificial grasses" of England, and is always recommended as worthy a place in all mixtures for permanent pastures, and especially for lawns, orchards, and shady places.

LUCERNE (*Medicago sativa*).—This is a well-known plant, which has been more or less cultivated in this country for many years. It requires very rich land, and deep and thorough cultivation. It should be planted in rows, and hand-hoed or forked between, several times during the first and second years. It does not attain its maximum productiveness till the third year. On these accounts, it is not likely to be very generally introduced into a country where land is cheap and labor dear. In the neigh-



LUCERNE.

borhood of large cities, however, it is a useful crop, especially for feeding to milch cows in summer. It can be cut three times a year, yielding a good crop each time, if the soil is sufficiently rich.

VETCH OR TARE (*Vicia sativa*).—In England this is an exceedingly valuable plant, especially on heavy soils. It can be sown in the fall or in the spring—the latter generally yielding the heaviest crop, though the former is the earliest. Vetches are principally used as a green food for horses. An acre of good vetches, fed in the yard or stable, will keep more horses than six acres of the best pasturage. They succeed best in a wet season, and on this account are not likely to do well in this country, though we have seen them in Canada, and have been informed that they succeed well and are very useful. A good “smothering” crop of vetches, cut before they go to seed, is nearly as good to precede wheat as a summer-fallow. *Morton's Cyclopaedia of Agriculture* says: “Sheep fatten faster upon this (green vetches) than on any other herb age, which occasions its constant use by ram-breeders. Horses improve more rapidly upon it than on clover or grasses. Horned cattle thrive surprisingly upon this fodder. Cows yield more butter from the tare than from any other provender; and pigs voraciously consume and prosper on it without farinaceous food.” We can endorse this opinion from our own experience.



VETCH.

Mr. LAWES' experiments on vetches, extending over many years, prove that, like peas and beans and clover, vetches are an enriching rather than an impoverishing crop.

JONAS WEBB'S SOUTH-DOWNS.—The thirty-fourth annual letting of JONAS WEBB'S South-down rams took place July 5th, at Babraham, England. France, Germany and the United States were represented. Sixty rams were let at an average price of about \$115. Our esteemed correspondent, J. C. TAYLOR, of Holmdel, N. J., was the purchaser of the highest-priced ram, which was knocked down to him for one hundred and twenty guineas (\$600).

NITRATES IN PHOSPHATIC GUANOS.

THE *Journal d'Agriculture Pratique* contains a communication from M. BOUSSINGAULT in relation to the presence of nitrates in phosphatic guanos. These guanos are found on islands and coasts where heavy rains are frequent, while the Peruvian guano comes from rainless regions. The latter is the dung of birds living on fish, and, as it is deposited in a dry, hot climate, no injurious fermentation takes place—moisture being essential to fermentation. Hence it is that while this guano is so rich in substances which afford ammonia by decomposition, very little ready-formed ammonia is found in a good sound Peruvian guano. Let it be moistened, however, and fermentation and the formation of ammonia rapidly takes place. If this fermentation was allowed to proceed, with sufficient moisture, and in a warm climate, and the fermenting guano was deluged occasionally with water to wash out the soluble matters, we should soon have left very little except the phosphates and other insoluble portions of the guano.

This is precisely what takes place on those guano islands where the guano is wet with rains. The dung of the birds was originally the same; but in the one case all its goodness has been preserved, while in the other rapid fermentation has taken place, the ammonia has escaped, and the soluble matters have been washed away, and we have little left but the phosphates (bones) and other insoluble matter.

BOUSSINGAULT, however, has recently discovered nitric acid in several samples of these phosphatic guanos—formed probably by the decaying nitrogenous substances attracting oxygen from the atmosphere, and he justly observes that in determining the value of these manures by analysis it will be necessary to examine for nitric acid—which has not hitherto been done.

THE POTATO ROT.—An English chemist, J. Q. RUMBALL, has published a series of articles in the *Mark-Lane Express*, in which he states that the proximate cause of the potato rot is “electricity acting on the moist tubers, enfeebled by many years of too rich cultivation,” and that it generally shows itself in the leaves three days after a thunder storm, although it sometimes occurs in moist, muggy weather. He has made some experiments, on Mr. LAWES' farm at Rothamsted, which seemed to verify this opinion. He exposed some tubers in healthy plants, galvanized some and electrified others, and in every case the disease was produced, while the remaining tubers continued sound.

YIELD OF MILK FROM AYRSHIRE COWS.

A PRIZE of ten pounds (\$50,) was offered by the Duke of Athole for the cow which should give the largest quantity of milk in five days. Eight cows were sent for trial to the appointed place, near Ayr, Scotland. No restrictions were made in regard to food, except that the cows were not allowed to have milk given them.

The best cow gave 263 lbs. of milk in five days, or 21 quarts per day. The greatest quantity given in a single milking, was from this cow—28½ lbs., or 11½ quarts.

The average yield of the four best cows was about 48 lbs., or 19 quarts, per day.

The trial took place last April, before the cows were turned out to grass. The *Ayr Advertiser* says that "the cow which gave the largest quantity of milk at the Duke of Athole's competition improved wonderfully in the amount of produce after she was put on the grass. She lately gave the astonishing quantity of 75 imperial lbs., or 7½ imperial gallons, of milk per day, for several days in succession. The largest quantity at one milking was 39 lbs." (15½ quarts.)

The milk of the prize cow yielded 12 per cent. of cream; that of the next best, 9 per cent.; the next 11, and the next 15 per cent. The latter is about equal in richness to Alderney milk.

THE CATTLE DISEASE CAUSED BY IMMATURE FOOD.

THERE is an interesting article in the *Journal d'Agriculture Pratique*, from the pen of GUSTAVE HAMOIR, in which several facts are brought forward to show that cattle feeding on immature food are very liable to *pleuro-pneumonia*—the cattle disease which has caused such a panic during the present summer in Massachusetts.

He states that in seasons favorable to a rank growth of the sugar beet—and when, consequently, the beet is deficient in sugar—cattle fed on the pulp of the beets are subject to this disease. But he has found that if the pulp is steamed in such a way that the steam carries off the volatile matters—alcohol, acetic acid, and essential oils—it is then healthy food.

Several experiments are mentioned which seem to prove the truth of this idea.

There can be no doubt that immature food of any kind is unhealthy. The leaves of turnips, which analysis shows to contain a much larger percentage of nitrogen than the bulbs, are well known to be less nutritious than the bulbs, and have a tendency to cause scours in the sheep and

cattle eating them. In Mr. LAWES' experiments on sheep this fact was brought out in a very striking manner. Sheep fed on turnips manured with superphosphate of lime did well and gave a fair increase; while sheep fed on the same kind of turnips and grown in the same field, and fed out at the same time, but which were dressed with a large quantity of ammonia, not only did not increase in weight but actually lost in flesh, and were so evidently ill-fed that it was necessary to discontinue the experiment. Analysis showed these turnips to contain a much higher percentage of nitrogen than those grown with the superphosphate of lime—in other words, they were deficient in carbonaceous matter. The ammonia caused them to continue growing late in the fall, and they were when gathered far from being perfectly matured.

Sugar beets, heavily dressed with ammoniacal manures, are well known to be deficient in sugar, and the manufacturers of beet-root sugar do not like excessively heavy crops. M. HAMOIR states that the years when the crops of beets were unusually heavy were the years when the cattle disease most prevailed, and we have no doubt it was caused by the beets being immature. We see no reason to doubt that immature grass, or that grown on low, wet land, would also be injurious.

SKINLESS BARLEY.—Mr. SILAS COOK, of Ashtabula, Ohio, has sent us some ears of naked seeded barley. He discovered two ears of this kind among his spring barley a few years ago, and has cultivated it separately since, till he has now several bushels of it. He thinks it yields as well as the common barley. The grain has somewhat the appearance of wheat, and weighs, Mr. C. says, *sixty-eight pounds per bushel*. It is, unquestionably, heavier than the common barley, but we should not judge it to weigh as much as Mr. C. states. It appears to be the same variety as the Italian barley, distributed two or three years since by the Patent Office. We saw this barley on the farm of Mr. CUMINGS, of Trenton Falls, N. Y., a few days since. Mr. CUMINGS obtained about a quart of the seed from the Patent Office two years since, and has now several bushels. It appears to yield well and promises to be a desirable kind.

In a recent lecture, Dr. ANDERSON, chemist to the Highland and Agricultural Society of Scotland, stated that the farmers of Great Britain expend twenty millions of dollars annually in artificial manures.

SPIRIT OF THE AGRICULTURAL PRESS.

WATER ON STOCK FARMS.—Mr. STRAWN, the great Illinois farmer, gives the following method in the *Farmers' Advocate* for keeping water on a stock farm: Dig a basin five or ten rods square and ten feet deep, upon a high knoll. Feed corn in the basin to your hogs and cattle until it is well puddled by the tramping of their feet, which will make it almost water-tight. He says the rains of a single winter sufficed to accommodate several hundred head of cattle, and that it had been dry but once in twelve years.

MILK BECOMING THICK WHILE SWEET.—A writer to the *Boston Cultivator* states that a few years since he fed a cow on "cut feed" mixed with Indian meal. After she had eaten two or three bushels of meal, the quantity of milk became less and the quality richer, and in a few minutes after the milk was drawn it became thick, like jelly, yet remained perfectly sweet. He says he "cut short" the meal, and there was no further trouble.

TO REMOVE HORSES FROM A BUILDING ON FIRE. The great difficulty of getting horses from a stable, where surrounding buildings are in a state of conflagration, is well known. *Wilkes' Spirit of the Times* says a gentleman whose horses had been in great peril from such a cause, having in vain tried to save them, hit upon the experiment of having them harnessed, when, to his astonishment, they were led from the stable without difficulty.

CASHMERE GOATS IN KENTUCKY.—R. W. SCOTT, of Kentucky, informs the *Ohio Cultivator* that G. W. OGDEN, of Fayette Co., has a flock of eighty Cashmere goats, grades and full bloods, male and female. He was astonished to see "how rapidly the short-haired scrub is transformed into the fine wool-bearing Cashmere—four or five crosses appearing to make them in all respects equal to pure-bred animals from imported stock."

SCOURS IN CALVES.—Nothing is so good to stop this complaint—says the *Mass. Ploughman*—as loam from the field. Calves should be weaned on hay; but they should always have sods of earth beside them in the barn. This is new to us. Carbonate of lime, it is well known, will check the scours; and perhaps it is this ingredient of the loam which renders it efficacious—and if so, pulverized limestone would be most effective.

TO REMOVE WARTS.—A correspondent of the *New England Farmer* says that potash dissolved to a paste and laid on the wart for half an hour, and then taken off, will cure a wart on man or beast.

TO KEEP POTATOES IN THE CELLAR.—A correspondent of the *New England Farmer* says: Put them in a pile as deep as you can conveniently. He has for three or four years noticed that where they were deepest they kept the best. Last autumn he put out 125 bushels in one bin, and filled them 2½ or 3 feet deep. They have decayed but little, and he found more rotten ones near the top than anywhere else.

SLOBBERING IN HORSES.—A correspondent of the *Boston Cultivator* cures this disease by the use of saltpeter. A tablespoonful to a dose he has found to cure the worst case he ever had, and has not found it necessary ever to give the fourth dose. He gives a tablespoonful in the morning, and in three days, if the horse is not free from it, repeats the dose.

ONIONS FOR CATTLE.—A writer in the *Homestead* has great faith in the efficacy of a peck of onions for ridding cows or oxen of lice. He claims to have found them an infallible remedy in his practice. They also give tone to the stomach, and are especially valuable in hot weather, when working cattle will lie in the shade at noontime, and refuse to eat.

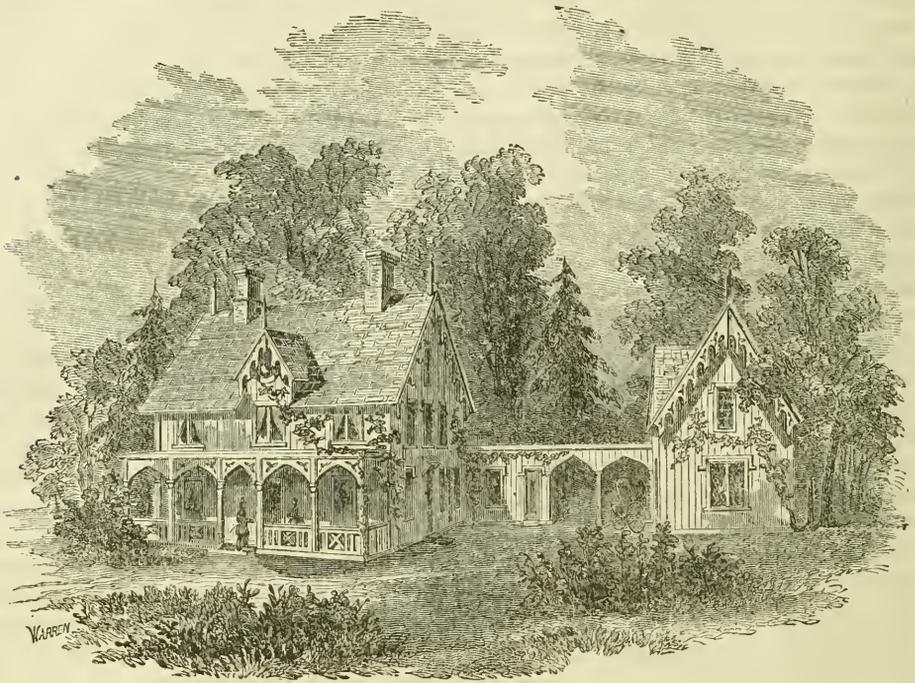
SAND FOR HORSE'S BEDS.—Mr. SMALL, of Dundalk, a veterinary surgeon of considerable experience, states in the *Southern Homestead* that sand is not only an excellent substitute for straw for horses' beds, but superior to straw, as sand does not heat, and saves the hoofs of horses. He states that sand is exclusively used for horses' beds in his repository.

INFLAMED UDDER.—A writer in the *N. E. Farmer* says that he finds by trial that lamp-oil is an excellent remedy for inflammation or hardness of cows' teats and bag. He had a cow whose teats were so hard and feverish, that no milk could be got from them at night; but by applying lamp-oil they would be soft and well in twenty-four hours.

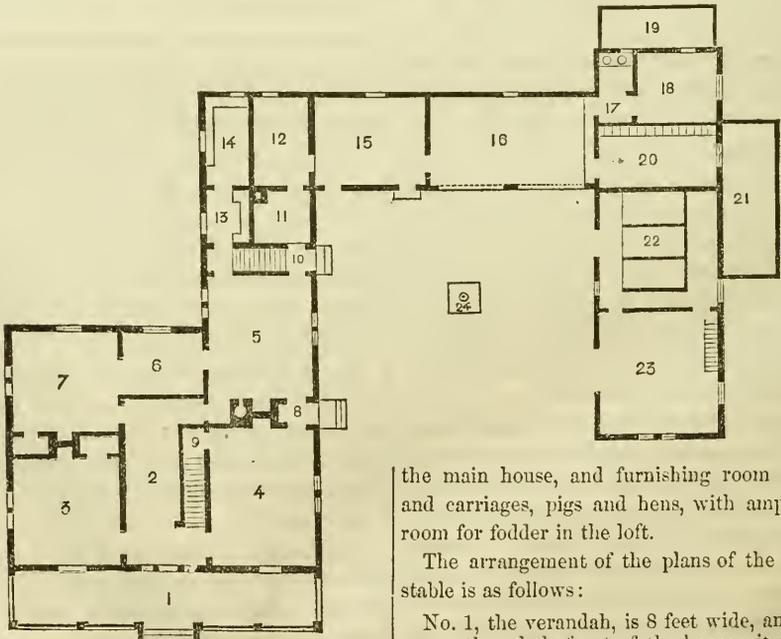
BLACK HOGS NOT SUBJECT TO MANGE.—A writer in the *Southern Planter*, describing the different varieties of swine, says he never knew black hogs to have the mange; while white ones are very subject to it, and sometimes die of it. Is this a fact?

TO KEEP RATS FROM GRAIN STACKS.—The *Ohio Farmer* says: "Put in a few garlics among the sheaves when stacking grain, and rats will not trouble it." We have frequently seen this recommend. Is there any truth in it?

SHEEP FOR WOOL AND MUTTON.—J. S. TIBBITTS says, in the *Michigan Farmer*, "If wool alone was my object, I would breed the Spanish Merino; if mutton solely was my object, I would breed either the South Downs, Leicesters or Cotswolds."



DESIGN FOR A COMPLETE FARM-HOUSE AND STABLE.



COMPLETE FARM-HOUSE AND STABLE.

IN addition to the conveniences afforded by a former design for "A Complete Farm-house," we have included in our present plans a large shed for the market wagons, and a stable connected with

the main house, and furnishing room for horses and carriages, pigs and hens, with ample storage room for fodder in the loft.

The arrangement of the plans of the house and stable is as follows:

No. 1, the verandah, is 8 feet wide, and extends across the whole front of the house; it opens into the main hall, No. 2, which is 11 feet wide and 24 feet long. No. 3 is the parlor, 16 feet square. No. 4, living-room, 10 feet by 20 feet, furnished with a large closet under the front stairs. Crossing a small passage, No. 8, where is also a door leading to the yard, we reach the kitchen, No. 5, measuring

16 feet by 18 feet, and containing a large oven and fire-place. No. 6 is a large store-room, 8 feet by 9, opening directly into the kitchen. No. 7, a bedroom, 15 feet by 16. No. 10 is another entry, 3 feet wide, leading to the yard; here are also stairs to the chambers and cellar. No. 11 is a scullery or wash-room, 8 feet square, with chimney in the corner. No. 12 is a shop and tool-room, 8 feet by 13. No. 13 is a pantry, fitted up, with sink and shelves. No. 14 is a dairy, 6 feet by 13. From the shop a door opens into the wood-house, No. 15; this is 13 by 16, and connects with the open carriage-shed, No. 16, 13 feet by 24.

The barn is planned as follows: No. 17 is a passage leading to the privy and to the covered portion of the pig-sty, No. 18; No. 19 is the yard connected. No. 20 is a hen-coop, 9 feet by 18, fitted up with a couple of rows of nests, and opening upon the hen and stable manure-yard, No. 21. No. 22 contains stalls for three horses, with feeding troughs in front. No. 23 is a carriage-shed and harness-room, 18 feet square. At No. 24, in the yard, is a pump with horse-trough attached.

The second floor contains six bed-rooms, besides bathing-room and closets. The attic may be left unfinished and used for storage.

CONSTRUCTION.—These buildings should be built of wood, covered with plank in the "vertical and batted" style, and painted some pleasing neutral tint, with the verge-boards, verandah, and window and door trimmings, a darker shade of the same color. The whole to be finished in a plain but thorough manner, inside and out.

Height of first story, 11 feet; height of second, 9½ feet.

Cost in New England about \$4,000.

PROFITS OF POTATOES.—H. M. SESSIONS, in the Annual Report of the Mass. Board of Agriculture, says he obtained 350 bushels of potatoes from 1½ acre of land. The crop gave a net profit of \$62. The lot had been used for a pasture for about 30 years. Twenty loads of manure, consisting of the scrapings of yards, were plowed in. The potatoes were cut in small pieces, and planted in rows three feet apart, and the hills eighteen inches apart. Ashes and plaster were applied in the hills.

MORE GOOD SHEEP.—My sheep are a cross of the different Spanish families, and for the last six years have yielded an average of over six lbs. of wool, well washed, on the back. The last winter I kept 28 in all—14 ewes, 1 buck, and 13 lambs. They raised 16 lambs this spring, and yielded me 170 lbs. of wool, which I sold quite too early at 45 cents per lb. I have sold, since shearing, to the amount of \$45, and have 32 left. I have ewes which raise a lamb and yield 7½ lbs of wool.—J. R. HUBBARD, *Tioga Co., N. Y.*

PRECOCIOUS HEIFERS.—The *Village Record*, Westchester, Pa., states that D. B. HINMAN, Esq., owns an Alderney heifer which at 13 months and 20 days old produced twin calves, and that he has also another heifer of the same breed which produced a calf at 13 months and 5 days old.

WILL WHEAT CULTURE PAY?—IF NAY, WHAT WILL?

EDS. GENESEE FARMER:—On some soils, in some localities, under some circumstances, wheat doubtless will pay well. The writer of this article can recollect when such a state of things existed in this locality. The unbroken forest of the Holland Purchase might then be bought at five dollars an acre. Labor was low, and the timber might be cut and burnt on the spot, and the ashes manufactured into *black salts* that would pay for clearing and fencing. Then the first crop of wheat—averaging 30 bushels to the acre—would, at 50 cents a bushel, pay for seed, getting in, and harvesting, and leave a balance sufficient to pay for the soil the first year!

Now, any man must be mad who would argue that such an experiment in growing wheat would not pay, especially after adding the fact that when wood, ashes and wheat were removed, the land was doubled in value. And it may be, and doubtless is, true, that the virgin soil of the rich prairies of the West will return more wheat in the first crop than sufficient to pay for soil and all expenses of the crop. Wheat forms "the staff of life" for the lazy and limping as well as the lusty and laboring population of the globe; and we shall be sorry indeed when it will not "pay" to raise it somewhere.

But to make the question practical with us, we must talk about the profitability of growing wheat *here, now*.

With regard to this town, or this county, or Old Genesee, though *farms* may be cited as exceptions, the *average attempts* to raise wheat for the last five years have *not* met expenses and interest on value of land—to say nothing of the deterioration of soil caused by this exhausting crop. That being the case (and I challenge facts to the contrary), raising wheat for market in Wyoming County or Genesee is not now profitable.

Well, then, tell us what will pay, if wheat will not.

Three things to which our soil is peculiarly adapted—any of it for some one of them, much of it for all three—will return a large profit *now*; will pay for extensive culture, and that too without exhausting the soil, for a long series of years.

1. **FRUIT CULTURE.**—Particularly raising apples—can never be overdone in Western New York. Half our soil, at least, is adapted to this most profitable enterprise. The demand will outstrip the supply; and if *that half* of our soil were covered with an apple forest in full bearing vigor, the return would be a hundred fold more than if the *whole* were a wheat field. Apples might be exported, green and dry, and apples might be fed to stock that the other half would furnish with pasture, hay, and grain. The atmospheric supply to the leaves that would fall and the refuse fruit fed to animals, would more than compensate for the earthy exhaustion in the fruit that might be exported—so that improvement, and not deterioration, would result to the soil.

2. **DAIRY.**—This need not interfere with the fruit. Nay, the apples would prove its richest auxiliary. And the butter and cheese, and the beef and pork that would come of refuse animals, and refuse milk, whey and apples, might also be spared without harming the soil.

3. WOOL.—Sheep should crowd the hills unoccupied by trees—and they might even profitably graze in mature orchards—and they, too, might come in for a share of refuse apples; while their wool, mutton, and pelts, would add to the profits of toil, with very little toil or trouble in their behalf.

With judicious management, industry turned into either of these three channels will pay.

Attica, N. Y.

†† L. S. ††

DAIRIES AND DAIRYING.

The importance of dairy-farming, though generally considered as occupying a secondary degree, is so universally admitted, that it requires no apology for giving the subject a prominent notice.

The dairy is a branch of rural industry, deserving of attention in the highest degree. There are no other means known to us by which so great a quantity of animal food can be derived for human support from the same space of ground. In many of the counties of this State, and in most of the Middle and Northern States, the production of this kind of aliment is immense, and its entire value forms no inconsiderable proportion of the yearly produce of the land.

There is no class of persons by which milk, in one or more of its forms, is not used. Cheese may seem to be a mere superfluity to those who feed largely on other animal food; yet, even among this class, the consumption, from its regularity, is considerable; but among the far more numerous classes, to whom cheese is a part of their customary diet, the consumption of this substance is very great. Butter is used in almost every family above the poorest, to an enormous extent. Simple milk, too, enters in the diet of every class, with this peculiarity: that it is consumed in a larger quantity in the rural districts than in towns and cities.

No other branch of rural industry produces so large a quantity of animal food from the same space of ground as the dairy. Surely, since the demand for dairy produce exceeds so considerably the supply, it consequently must be a matter of the highest importance to increase that supply by every means that can be adopted, which would not injure or materially interfere with other interests of great importance. This country, or rather particular sections of it, has long been noted for the produce of the dairy—both cheese and butter—in which few sections have been able to rival us. The process of making these articles, it is true, in other States or sections, differs somewhat from that generally adopted among our own dairy farmers; but this is not always sufficient to account for the difference of quality which exists, since it is not an unusual thing to find dairies in different parts of the country conducted upon precisely the same plan, which furnish products of very different qualities. When such is the case, this difference must be in consequence of one or other of the two following reasons; either there must be a difference in the breed of cows employed in the dairies, or else the quality of the food upon which the cows subsist must be materially different. It behoves, therefore, persons interested in dairying, who perfectly understand the modes adopted in those districts where the products of the dairy-farms are held in the best repute, to apply themselves diligently in

the discovery of the cause why their dairy productions are considered inferior to the products of others probably at no very great distance from them. We do not presume to say that the defect could be easily or in all cases remedied at all; because, where it was ascertained to proceed from a difference in the herbage upon which the milch cows pastured during the summer, it might be found impracticable to assimilate the herbage of the one to that of the other; or at least this could not be effected permanently, nor at all, unless at a very great expense. But where the inferiority was ascertained to proceed from a difference in the kind of stock, where the dairy is the first consideration with the farmer, this defect should speedily be remedied.

Something depends, no doubt, upon the climate, since extremes of cold or heat are known to be prejudicial to dairying; and although in the warmer latitudes cheese, and sometimes even butter, is made, neither of them would be considered fit for human food in the more refined and more famed countries for dairy purposes. Something also depends upon the manner in which the dairy-house and cheese-room are constructed; and probably less attention is bestowed upon this point among our own dairy farmers than it deserves, or which it obtains in most other countries where the management of milk is carefully attended to.

The great point in making good butter, and that which will keep, is the freeing it from all buttermilk; and if everything else is well done, if this point is overlooked, good butter is impossible for any length of time. The mixture of milk in any degree with the butter is sure to produce frouziness or any unpleasant taste to the butter; and the entire freedom from this constitutes the grand secret of making good butter. There are many who think washing butter with water incompatible with retaining the rich flavor; but if the water is cold and pure, it is scarcely possible anything should be washed away—the buttermilk, which destroys the flavor of all butter, excepted. Besides, the best butter in the world, and that which in all markets commands the highest price—viz., Dutch butter—is invariably made in this way; and where the example has been followed by others, it has rarely failed of success. If any, however, doubt the propriety of washing butter, they may use any method they choose, provided the milk is separated perfectly. Entirely free from the substance that causes it to assume the putrid, frowsy taste of bad butter, it may be kept with almost as much ease as lard. Solidity in packing, clean, sweet vessels, and a low temperature, will ensure its keeping for any reasonable time. Let no one expect good butter, however, so long as coarse, impure salt is used, or a particle of the buttermilk is allowed to remain in it.

C. N. BEMENT.

Springside, August, 1867.

HOW TO BECOME A GOOD HORSEMAN.—Keep your head up, chin down, chest forward, shoulders back, elbows in, hands down, back in, belly out, feet forward, thighs fixed, knees in, loins loose, seat firm, hands tight, horse and rider well balanced, trot two hours every day without stirrups, and then time and perseverance may make you a good horseman.

KEEPING POULTRY ON A LARGE SCALE.

EDS. GEN. FARMER:—Since the publication of the "American Poulterer's Companion," in 1845, we have been repeatedly applied to for information in relation to the management of poultry on a *large scale*,—that is, to make a business of it; basing their calculations, no doubt, on the favorable accounts heretofore published, where from ten to one hundred fowls have been kept and expenses noted, showing a profit varying from thirty-five cents to one dollar per head as the result. Now, say they, if one hundred hens can be made to pay one dollar, or even fifty cents each, why can not one or two thousand be made to pay at the same rate? A very reasonable calculation, to be sure, but somehow or other very difficult to accomplish.

The only poultry establishment on an extended scale of which we have any personal knowledge, that even made an approach to success, is the one attached to the Astor House farm, situated in Union township, New Jersey, seven miles from Hoboken.

Some four or five years ago, a farm of 234 acres was purchased for the purpose of supplying the Astor House with fruit, vegetables, milk, eggs and poultry. Seven acres were appropriated to poultry, which was divided into four sections, one of which contained one thousand hens and chickens. The poultry-house is two hundred feet long and forty feet wide, also divided into four parts, and containing twelve hundred nests for hatching. The poultry included 2,500 hens and chickens, 250 ducks, 200 turkeys, with a limited number of geese. In the yards were fifteen hen-houses and no less than one hundred chicken coops, where hens with their broods shelter and keep to themselves their respective families of pin-feathered fledglings. It was both an amusing and a musical scene—such a numerous combination of poultry of all sizes, ages, and varied voices and plumage, many of the hens being of rare breeds.

Everything went on prosperously for the first year or two, when a most fatal malady broke out among the fowls and swept them off daily by the hundreds, like rotten sheep. About this time we visited the establishment by invitation, and were shown a number of invalids in the different stages of the disease. At first it was supposed they were poisoned, but on dissecting and analyzing the crops no traces of poison could be detected. The disease was a singular one. In some cases they would drop lifeless from their roosts to the floor. Others would seem to lose the use of their legs, and force themselves along on the breast by the aid of their wings for a few days, when death would relieve them. None attacked was ever known to recover. This was three years ago, since which we have never heard how the enterprise turned out.

Fowls are very fond of animal food, and will thrive well upon any kind of offal. In this respect they were well cared for—their principal food consisting of the offals of the Astor House, which of course embraced a great variety of nutritious substances.

But it takes a Frenchman to know how to make the most of things. A Mons. DE SORA, in France, discovered the secret of making hens lay eggs every day in the year by feeding them on horse-

flesh. The fact that hens do not lay eggs in winter as well as in summer is well known, and the simple reason appears to be that they do not get the supply of meat in winter which they readily obtain in the warm season, by scratching the ground for worms and insects. M. DE SORA was aware of these facts, and set himself earnestly at the construction of a henary which should be productive twelve months in the year. He soon ascertained that a certain quantity of raw mince-meat given regularly with other food produced the desired result; and commencing with only some three hundred hens, he found that they averaged the first year some twenty-five dozen eggs each in the three hundred and sixty-five days. To supply this great consumption of meat, M. DE SORA availed himself of the constant supply of superannuated and disabled horses which can always be gathered from the stables of Paris.

We have said he commenced with three hundred hens; another season it is said he had several thousand at work, with a fair proportion of cocks, and the proportionate result was the same.

The sheds, offices, and other buildings are built around a quadrangle, inclosing about twenty acres, the court in the centre forming the general feeding ground. This latter is subdivided by fences of open paling, so that a limited number of fowls are allowed to herd together and these arranged in the different compartments according to age—no bird being allowed to exceed the duration of four years of life. At the end of the fourth year they are placed in the fattening coop for about three weeks, fed entirely on crushed grain, and sent alive to Paris.

M. DE SORA permits the males and females to mingle freely at all seasons. After a fair trial of all the various breeds, he has cleared his establishment of every Malay, Shanghai, and all other outlandish fowls, breeding only the common barn-yard chanticleers and the feminines of the same species. He contends that the extra size of body and eggs pertaining to these foreign breeds can only be produced and sustained by extra food, while for capon raising, the flesh is neither so delicate or juicy as that of the native breed.

The manure produced in the French establishment is no small item, and, since it forms the very best fertilizer for many descriptions of plants, it is eagerly sought after at high prices by the market gardeners in the vicinity.

We now come to the most wonderful and interesting feature of this establishment (if such an establishment was ever known, of which we have our doubts), viz: The sales of eggs during the winter averaged about 40,000 dozens per week, and sold at the rate of six dozens for four francs, making the actual sales up to \$5,000, in round numbers, for every seven days, or \$260,000 per annum. The expenses, including wages, interest, and a fair margin for repairs, etc., are in the neighborhood of \$75,000, leaving a balance in his favor of \$185,000 per year!

The foregoing account of a French henary, if true, clearly demonstrates that the keeping and rearing of poultry on a large scale can be made profitable; but we think it smacks a little too much of Munchausianism.

C. N. BEMENT.

Poughkeepsie, August, 1860.

NOTES FOR THE MONTH—BY S. W.

THE WILD LANDS, OR BUSHY OAK PLAINS, OF CENTRAL LONG ISLAND.—A pamphlet of 28 pages, from the press of VAN BENTHUYSEN, Albany, is just issued, containing another capital contribution from the pen of WINSLOW C. WATSON to the volume of State Agricultural Transactions for 1859. This paper gives a succinct but graphic account of the geological structure, topography, soil, and matchless climate of Long Island; with a more minute description of the extensive, uncultivated, bushy oak plains, so long ycleped barren, on the great central plateau of the Island.

Mr. WATSON made a very thorough examination of the soil of those plains, both surface and subsoil; when he found—strange as it may seem—the deepest soil on the highest land, and the thinnest and most indurated in the vales and swaley places; and that the soil of these bushy plains, with more vegetable matter, contained the same mineral elements as those of the best cultivated farms; and nowhere in his researches on those plains did he find coarse, barren sand, to correspond with that he saw in Smithtown on cultivated farms. It seems that Long Island is of unique formation; the surface and subsoil rests upon boulders and gravel, which acts effectually as an underdrain to the soil of the whole Island—thus saving the expense of tile drains. Yet the Island is supplied with never-failing springs and fresh water ponds; and owing to its alluvial formation, there is no incumbrance of stone, and no rock in situ—except at Hurl Gate, where it crops out from the opposite main land. This gives the Island an area of arable soil, every acre of which may be made, under the influence of its moist and warm climate, the paradise of the fruit-grower and market-gardener.

The newly cleared farms, gardens, and fruit-yards, now in successful cultivation at Deer Park, and many other places east, on both sides of the Rail Road, now clearly prove the feasibility of these much slandered and long neglected wilds for farm and garden purposes. Certainly, the day is fast coming when every acre of this beautiful Island will be covered with patches of soil-enriching clover, fruit-yards and market-gardens, where it is not appropriated for villages and salubrious country-seats. The milk that already goes to New York by the Long Island Rail Road, amounted last year to three and a quarter millions of quarts.

CROPS IN SENECA Co., N. Y.—Every crop on the farm list, potatoes excepted, is now certain to be unusually large and good. Potatoes never promised better until the first of August; the vines were very large, with much more bloom and seed balls than ever before—or at least since the advent of the rot; so that many began to feel that the potato rot had gone with the wheat midge. But within a few days, just as *Early Yorks* were of full size, the leaves began to wither and die, and many of the tubers are rotting. It seemed to make no difference whether the potatoes were on a dry mucky soil or on a more compact clay, both well underdrained; but the late planted potatoes are not yet affected, and in those parts of the County where they have had less rain, the potato crop may be yet perfected. Fruit of all kinds except peaches,—particularly grapes, plums and pears—will be very abundant.

The late hot sunny weather has had a magical effect on the corn crop; and as early corn on good soils has already begun to glaze, a good crop is certain. But the long continued rains in this vicinity has prevented early corn from filling to the point of the ear; the the heaviest corn crop is only obtained when there is just drought enough to curl the leaves by day, and they are again expanded by the heavy dew at night.

GARDEN CROPS, AUG. 12TH.—There has been no frost to injure tender plants since early in May, and most garden esculents have been much earlier than usual. The wet weather seems to have been unfavorable to beans and *Hubbard* squash, and cucumbers are late. Bean leaves turn yellow, and the pods do not fill well. Squashes vine and bloom, but make little fruit. Lima beans alone hold their verdure, and recuperate fast under the late hot weather, and tomatoes are in rapid progress towards ripening. Onions, beets and cabbages never did better if well hoed; but much hoeing has been necessary to loosen the compact, cracked surface, after each heavy rain was succeeded by a hot, baking sun. Manure is bootless without mechanic aid. S. W.

MAINE ITEMS.

EDS. GENESEE FARMER:—As your readers have not heard lately from "way down east," a few notes from that portion of Uncle Sam's dominion may be readable, if not interesting or instructive.

From an agricultural point of view, the prospect is rather gloomy. According to present indications, crops for the year will fall below the average. The grass crop which has been harvested amounts to about one-quarter less than for preceding years.

We have experienced a severe drouth, which, considering the time of year, is seldom known. There has been but little rain since April, and indeed no continued storm. The first thunder shower that has passed over this place since August 31st, 1859, was to-day (Aug. 9th, '60)—which is unusual. Water is very scarce; wells and springs have dried up; pastureage is short, and all kinds of crops suffering for moisture. Unless soon revived, "fall feed" will be almost entirely wanting, which, with the decreased hay crop, will cause a diminution in the already low price of stock. Hay (loose,) is now selling in our market at \$14 per ton, with fair prospect of commanding \$18 by housing time.

Fruit—which with us consists mainly of the apple—although better than last year, will hardly be an average crop. The *Baldwin* has been for many years the standard, but the cold winter of 1856, which was so fatal to trees of that variety, has caused our fruit-growers to look about for a hardier kind—one less liable to be injured by our sudden changes of temperature. The question is, which is it?

Potatoes are as yet free from rust or rot; which some say is owing to the absence of wet, foggy weather.

The temperature during the month of July has been low; the mean for the month being 67°—five degrees less than for July, 1859. August has been warmer—the thermometer indicating 87° at 3 P. M. of the 6th. To-day (9th) is cloudy, falling weather, indicating rain, which would be gratefully received.

Belfast, Me., Aug. 9, 1860.

G. E. BRACKETT.

HOW SHALL WE STOCK GROUND WITH GRASS?

The common practice in New England has been to seed down with oats in the spring, sowing about a peck of herdgrass or red-top and ten or twelve pounds of clover seed to the acre, after the oats were harrowed in. The advantage of this course was supposed to lie in the saving of labor in plowing, and in the shading of the grass, while the plants were young. It was thought that the plants would be damaged by having the full power of the sun upon them in summer. If the seed was not sown in the spring, it was sometimes sown with rye in the fall.

Neither of these reasons is satisfactory. Plowing is a great advantage to all good land, and if the oat-field were to be plowed up to fit it for a grass crop the last of August, it would result in a much better grass crop than it is possible to get by spring sowing with oats, or any other grain. The grain shades the grass quite too much. The grain is to the grass what weeds are to any hoed crop. Many of the grass seeds and plants die, or are stunted so that they will never grow strong. Every one notices among the oat stubble, patches where the seed has not taken. The young herds and clover have been smothered. The evil is made worse in fields that have not had clean tillage. The weeds start vigorously after the oats come off, so that the grasses get very little hold the first season. It not unfrequently happens that a crop of wormwood is taken off after the oats, leaving a few feeble grass plants in October, as the stock for the year.

We have sown herdgrass in the spring, and taken a crop off in July, and we are fully persuaded that the better way of stocking meadows is to give the grass full possession of the land, when it is sown. The plants then have all the advantage of a fresh, loose soil, and the sunshine. They take root immediately, and soon make top enough to protect their roots from the heat of summer. The best months for sowing grass seed are either March or April, in the spring, or from the 15th of August to the 15th of September in the fall. If oats are raised as the crop to precede grass, we would plow the land again and manure with compost early in September, and sow with grass seed alone. The plants will be well rooted before winter sets in, and will not be very liable to winter-kill.—*Homestead.*

NOTES FROM CANADA.

THE WEATHER AND THE CROPS.—The weather during the past four weeks has been very warm, with an occasional shower. The winter wheat is now all safely housed, and much of the spring barley has been got in. There is yet much spring wheat and oats to be harvested—most of the *Flve* wheat being still quite green. Owing to a slight frost which occurred in July, the ears of the spring wheat have not filled out well in some places. I noticed one field entirely blighted—the grain being light and small, and the straw of a violet hue. I have examined a great many fields of wheat during the progress of harvesting, and have not found one entirely free from the presence of the midge. Those who have threshed out their wheat say they find the yield greater than they expected. Oats are very heavy in most localities, and the equine tribe

will have a good time generally next winter. Potatoes have been planted largely, and look sound at present. They will probably command fair prices, should there be a demand for wheat for shipment. Fruit abundant; but the apple trees are so loaded that the fruit will be of a very inferior quality; in fact, much of it will be fit only for hogs or making into cider. Plums have been less destroyed by the curculio this year than usual, and some trees are heavily loaded with fruit.

A heavy rain storm set in at 6 P. M. yesterday, and it looks like rain for a 24 hours' spell.

THE PROVINCIAL AGRICULTURAL FAIR.—Great preparations are making this year for this Fair, which is to be held at Hamilton. A handsome crystal palace has been erected, and large grounds have been enclosed and well provided with stables, cattle-sheds, etc. It is not yet definitely settled on what days the fair will be held, but it is expected to commence on the 11th of Sept.* Entries, in all the departments except those of Horticulture and Foreign Stock and Implements, must be made before the 1st of Sept. \$15,000 is offered in premiums. As it is expected that the Prince of Wales will be present to inaugurate the fair, a large attendance is expected; and it is anticipated this will be the most successful exhibition ever held by the Society. A prize of \$40 is offered for the best collection of live fishes, and a large tank has been built on the ground to contain them. I wonder if it ever entered into the heads of the committee that it would be necessary to provide some means for preventing the pikes and other large fish from devouring all the smaller fry.

SOWING WHEAT.—There is no question but that it is better to sow winter wheat early, say not later than the first week in September, and cover it in three or four inches deep, either by the use of the grain drill or by plowing it in with a gang plow. I think were this more generally done, we should hear fewer complaints of the loss of crops by winter kill; and the wheat will take time to come up, and therefore will not be apt to put on a heavy top, and become smothered should a heavy snow lie on it all winter.

J. MACKELCAN, JR.

Hamilton, C. W., Aug. 13th, 1860.

GOOD PROSPECTS FOR THE FARMER.

EDS. GENESEE FARMER:—It is but a little over 30 years since this county was one vast wilderness, with the exception of a small strip on the Thames and on the shores of Lake Erie. Now there are thousands of acres waving with grass and grain. Upon the whole, we have not had so good a harvest for this last ten years as the present. As regards wheat, this last two or three years there has not been more than half as much sown as usual, on account of its destruction by the midge. We have had to depend on the United States and other parts of Canada for a great portion of our breadstuffs; but this year we shall have enough and to spare. There is no doubt that the farmers will be encouraged to sow more this fall.

It is my opinion, there is no better remedy against the midge than to cultivate well, drain well, sow early, and let that be the variety which will

* It has since been decided to hold the Fair Sept. 18—21.—*Eds*

ripen the earliest; the early sown this year has entirely escaped the midge, while that which was sown later has been slightly injured.

As respects spring wheat, I should think the early sown is about one-half destroyed, while that which was sown later is uninjured, though the early sown is a heavier crop and a plumper grain. It is my opinion it will yield nearly as much per acre as the late sown.

Peas and oats will be above an average crop, and the hay crop is excellent.

The prospect is, that if we get a few more showers the potato and corn will be an abundant crops, and I think that the oppression of 1858 and '59 will be left far in the rear, and that our farming community will cease to complain of "hard times."

Kent Co., C. W.

H. WHITE.

BEE-HIVING—MANAGEMENT, ETC.

EDS. GENESEE FARMER:—J. H. A., Avon, C. W., on page 256 of the *Farmer*, says: "I would like an article from some of your experienced correspondents on the management and working of bees. Almost all the bees are leaving round here; some of them leave after they are hived and start to work."

Having had experience with bees, I will reply. If "almost all the bees are leaving," it is time that a different system of practice was substituted, let that system be what it may. What way the bees in his section are managed, of course I cannot say. I presume the management is quite different from mine. My neighbors who lose their bees by flight adopt quite different modes of operation. For more than thirty years I have had the sole charge of large apiaries; and during that time have not lost by flight enough swarms to average one in five years! I have no patent mixture or potent charm to induce them to stay, but simple common sense management. That others are not equally successful I am well aware, as I find that those employed by us to take charge of a yard during the swarming seasons, who have had full instructions, fail in some instances. There will arise some conditions not provided for in the directions. Yet success is so generally good, that we can not but ascribe it to management. By contrasting the two methods we find some difference. For instance: First, the bees are sadly neglected till a swarm issues; then a tin-horn, tin-pan, or bells, or any thing to make a horrible noise, is used to make them cluster. Very often a hive is to be constructed; or an old one, unfit to use any way, needs some cross-sticks inserted, or something to take time. If the hive is ready, it has been lying in the sun all day, and made hot enough for an oven. If it is painted, it is planed inside as well as out, and has been done so recently, that the rank smell is very offensive; or some dark color has been applied that absorbs the rays of the sun till the heat cannot be endured. When the bees are introduced, something nice to wash the inside must be had, to make them like it. A table is set out, and a cloth spread upon it; sticks are put down to raise the hive an inch or more. If they succeed in getting the swarm even on the outside of the hive, it is left; if the bees go in, it is well—if they go off, why, hope for "better luck next time." The hive is left unsheltered in the hot sun, and when there is no wind, the heat is soon

insupportable; the bees hang in loose strings, instead of a compact body as when kept cool. They are very apt to fall, and when they do, will rush out on every side; and if the queen chances to drop with them, they may leave. Two-thirds of all the bees that go to the woods are managed in this or a similar manner.

On the other hand, the bees are properly cared for. When a swarm leaves, it is not disturbed by hideous noises—we being satisfied that they will cluster without any such demonstration. It is possible that one in three or five hundred may leave for a tree in the woods without first clustering; yet I have had a few thousands, not one of which have done so. Hives are all ready in season, and cool when used. They are generally used without paint; but if painted, a light color is put on, and done long enough previously to lose all smell of oil, etc. *Nothing but bees* is put into the hive. If the hive is new, the inside is left rough from the saw, not planed; if an old hive, it is made sweet and clean, and the inner surface scratched rough so that the bees can hold fast. They are hived in the most convenient and simple way: a board large enough to set the hive on is laid on the ground; should there be grass, a sheet spread down first will facilitate the operation—the bees shaken down by the hive, or in it, as is most convenient. Should they settle in a place where they cannot be shaken, they are dipped off and emptied by the hive; one side of the bottom of the hive rests on a board, and the other raised an inch or more. The whole swarm is made to enter before leaving them. When they go in reluctantly, they are stirred with the feather end of a quill; and when very obstinate, a little water is sprinkled on them to facilitate their motions. When all are in, except the very few that will continue to fly, the hive is let down on the board and carried to the stand it is to occupy, the front raised half an inch, and *thoroughly shaded from the sun*. When the weather is very hot, and they cluster outside, water is occasionally sprinkled on the hive, to cool them.

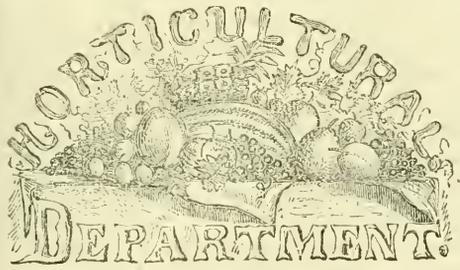
Should two swarms unite, making too many to be comfortable, the boxes are added immediately. This is all that is done. One in fifty may call for something more; yet this system carried out will secure success generally. Raising the hive on one side, and thoroughly shading it, is very important.

St. Johnsville, N. Y.

M. QUIMBY,

Author of *Bee-keeping Explained*.

HORACE GREELEY ON AGRICULTURAL PAPERS.—There are at present some fifty or sixty periodicals published in our country devoted to Farming—as many, I presume, as in all the world beside. They have been built up at great expense of talent, labor, and money; for when Col. Skinner started the first of them at Baltimore, some forty or fifty years ago, the idea of teaching farmers anything in *that* way was hooted by them as ridiculous, and he found it hardly possible to give his early numbers away. Hundreds of thousands of dollars have been spent on these publications; and they are this day, in my judgement, doing more to promote the true growth of the country and the substantial, enduring welfare of our people, than Congress, the Army and the Navy, for the support of which they are taxed some Forty Millions per annum.



WILSON'S ALBANY STRAWBERRY.

No Strawberry has been produced or introduced into this country which has attracted so much attention—unless we except the *Hovey's Seedling*—as *Wilson's Albany*.

Its fame has spread throughout the length and breadth of the land, and its good qualities extolled until the public have almost believed this berry to be the crowning production of skill—the perfection of excellence. But, alas! now come rolling up mutterings, “not loud, but deep”—the reaction of its former praise.

All this was to have been expected; and yet, much more.

Leaving out of mind our own knowledge of this fruit, it would be difficult to believe that it could have gained so wide a celebrity without many valuable qualities to commend it. It has been before the public six or seven years, and all this time been gaining favor; and we are sure that many cultivators of it now consider it one of the most valuable varieties. It has faults, but we believe not such as will cause cultivators to discard it. We learn from the July number of *Hovey's Magazine*, that “the Fruit Committee of the Mass. Horticultural Society has passed a unanimous vote that ‘the *Wilson's Albany* is unworthy of general cultivation;” also that at a recent meeting of the Hartford County Horticultural Society, “Mr. H. AFFLECK received the first prize for *Hovey's Seedling*, ‘which,’ the *Homestead* says, ‘was probably as fine a show of one variety of Strawberries as was ever upon our tables. The berries were monstrous, and in perfect order, and the smallest in the dish of large size; and they were raised by one who has discarded the *Wilson*, with many other varieties.’ Notwithstanding this, it seems there was a good deal of grumbling about the award of the premium, which, in the opinion of some practical men, as well as a majority of some of our amateur cultivators, should have been given to *Wilson's Albany*, which the editor states, ‘beyond question, is the favorite berry.’”

Mr. HOVEY commends the action of this committee, and considers the Hartford Co. Horticultural Society particularly fortunate that it has a committee with skill and good taste enough to render such a decision, although practical men and amateur cultivators grumble about it.

This certainly looks as if Mr. HOVEY thought it necessary to stand up in defence of his favorite berry, although only in competition with what he calls “one of the sourest, most dirty colored, and disagreeable flavored of all recently introduced sorts.”

The truth about the fruit no doubt lies between its extreme praise on the one hand and its wholesale condemnation on the other.

It is hardy, extremely productive, and of very large size—three qualities which are not to be overlooked.

It is more acid than many berries, but this is not objected to by most consumers. At the Fruit Growers' Society of Western New York, held in June last, the members generally spoke of its productiveness in high terms. One fact about this fruit seems to have been discovered at that meeting, which is, that it varies in acidity in different soils. Members who were well qualified to judge say that it is much more acid when produced at Buffalo or vicinity than at Rochester; and this may account for the different opinions on this point.

A writer in the *Country Gentleman* of the issue of August 9, dating his letter Lewiston, Me., says of a bed of *Wilson's Albany* this season, that it gave fruit “earlier, larger, more fair, and every way more marketable than either the *McAvoy's Superior* or *Moyamensing* in the same garden, or any *Hovey's Seedling* I have seen during the season. Some of my friends, interested in Strawberries, have seen my bed and the fruit, and all pronounce it the best variety they have ever seen; and had I a thousand plants to-day, I could dispose of them to parties who now have other varieties.”

The *Pittsburgh Evening Chronicle*, of August 1, contains an interesting account of a visit to the “Small Fruit” farm of Mr. J. KNOX, near Pittsburgh. Mr. K. has one hundred acres under cultivation of the “Small Fruits,” of which fifty acres are in Strawberries; he has for testing and specimens over one hundred different varieties. “He regards the *Wilson's Albany* as a very valuable and profitable variety, and has shown his faith in it by planting fifteen acres of it this spring. In addition to its many other excellencies, it has proved a superior berry for canning, or preserving, and was

this season in great demand for these purposes. Its weight, size, solidity, flavor, and color, render it popular for this use. It is, moreover, eminently productive, and highly profitable as a market fruit."

With so much testimony as we constantly hear to the value and profitableness of this Strawberry, we cannot think that it is to be rejected and thrown out of cultivation as summarily as the action of the Massachusetts Horticultural Society might lead us to conclude.

At the meeting of the American Pomological Society, this month, this question will no doubt be thoroughly handled, and the merits of the fruit reported upon, by delegates from all parts of the Union.

THE NEGLECT OF FRUIT TREES.

IN traveling about the country this summer, we have been painfully impressed with the fact that the majority of farmers sadly neglect their fruit orchards. Where one orchard is properly managed, ten are shamefully neglected. Bad culture is the rule; good culture the exception. "Bad culture," did we say? *No-culture* would be nearer the truth. Look at that orchard of young trees set out six or seven years since. There is not a thrifty, healthy looking tree among them! Many are dead, some are dying; and all are sickly and unproductive. It is a sad sight. "Were the trees unhealthy when set out, or are they poor varieties, or is the climate too severe?" Not at all. Other orchards in the neighborhood are healthy, productive, and a source of profit to their owners. *It is bad management; the entire absence of good culture.* The trees were stuck out in small holes dug in a wheat field, and left to live or die, as it might chance. Since then the field has been in grass or grain; the orchard has received less culture than almost any other part of the farm, from the idea probably that the trees would take care of themselves. This man is a subscriber to the *Genesee Farmer*, but we are ashamed of him. We hope none of his neighbors see him take the paper out of the post-office. Can't we persuade you, FRIEND FRUITLESS, to do something with that orchard? We should prefer to see it cut up, root and branch; but if this is asking too much, do cut out all the dead and dying limbs; put the plow into the soil this fall and give it a good summer-fallowing next season. You have little manure to spare, (we *may* be mistaken on this point, inasmuch as the dark pools in the barn-yard indicate that it is not very carefully preserved) but if you *could* spare a little, it would do the trees no

harm. Suppose you try a little? At all events, do *something* for that orchard. Your corn looks well. It has been properly cultivated. You plowed the land well and deep, and the horse-hoe has been freely used, keeping the soil clean and mellow. The crop will be good, and does you credit. You cultivated your potatoes well; the land is very clean, and you have a good crop. You put in your wheat last fall on a good summer-fallow. You provided what TULL calls a good "pasture" for the roots to feed in, and your heart gladdened as the crop grew and flourished, and produced a bountiful harvest. Can not you take a hint from these results? Cultivate your trees half as well as you cultivate your corn, and your orchard would be a credit to you.

Fruit trees are set out by millions every year. The nurserymen of this city alone send out each year a million dollars' worth of fruit trees and other nursery stock. As a rule, the trees sent out are healthy and good; and yet how small a proportion ever live to bear fruit, or make profitable orchards! The principal cause of this is the want of *previous preparation of the ground*. Farmers will take pains to prepare their land for wheat and other grain crops; but fruit trees, intended for a permanent orchard, and involving considerable expense in their purchase, are set out, with little thought or care, on land which has received no adequate preparation. Subsequent culture may do something towards correcting this first and grand mistake; but it requires far less labor to prepare the land right in the first place than to do so after the trees are set out.

Let all our readers, then, who intend to set out trees this fall, get the ground ready *now*. Not a day should be lost. If the site intended for the orchard is not entirely free from stagnant water, it *must* be underdrained. To determine this, dig a hole three feet deep, and if water remains in it, it needs draining. If fall can be got, let the drains be cut four feet deep. Then plow the land deep and well, and if subsoiled all the better. This cultivation of the whole surface will be better than digging even the largest holes, and will save much time in planting.

If the soil is not rich enough, it is better to manure now than to apply the manure in the hole at the time of planting. This, in fact, should never be done.

For the first few years after the trees are planted, cultivate nothing but hoed crops. The use of the plow and cultivator will keep the soil mellow and moist. The difference in the appearance of trees

growing on land that is cultivated during the summer, and on that which is in grass or grain, is most striking—especially in the case of peaches.

It requires no particular skill to raise our ordinary fruits. Every farmer might have them in abundance; but he who hopes to be successful must abandon the idea that fruit trees will flourish in grass or grain.

* **CHERRIES IN CALIFORNIA.**—The California *Culturist* says that among all the small fruits, none maintains a higher relative value in California than the cherry. One dollar and a half a pound for the earliest varieties, and imperfectly ripened at that, is not an unusual price in the San Francisco market. "When they get down to a dollar a pound, people begin to buy quite freely; but when they reach the minimum, or lowest figure,—50 cents a pound—nearly all feel as though they could indulge in one good feast of cherries."

The *Culturist* says the only serious drawback to the culture of the cherry in California, is the *depredations of the birds*. To meet this, the *Culturist* recommends planting orchards of cherries worked on the Mahaleb stock and cultivated as dwarf trees. It recommends planting the trees six or eight feet apart, and then covering the whole orchard with a net to keep out the birds.

THE SPRING ROSE OF SHANGHAI.—Such is the name given to a climbing rose brought from China by Mr. FORTUNE. The London *Gardener's Chronicle* speaks highly of its merits. It says it "may not please rose fanciers," but "as a pillar rose it is invaluable." Mr. FORTUNE says, "it is held in high esteem by the Chinese; indeed, it is one of the best white roses I met with in China. It is frequently seen of a large size, covering trellis-work formed into alcoves or built over garden walks. For this purpose it is well suited, as it is a luxuriant grower and it blooms profusely and early." Its flowers are white, tinged with pink on the outside; sweet-scented, and grow in endless profusion in small clusters. The flowers are small, and the petals do not stand up well; but it is very hardy, early, a rampant grower, and undoubtedly deserves attention.

THE RASPBERRY JAM TREE.—In Western Australia there is a species of *Acacia*, the wood of which has a fragrance like raspberry jam, and the tree is called the Raspberry Jam *Acacia*. The flowers have an unpleasant odor, and the leaves, when wilted, smell like a decaying cabbage.

VAIL'S AUGUST DUKE CHERRY—CORRECTION.—In the report of the "Fruit Grower's Society of Western New York published in the August number, where Mr. DOWNING speaks of this cherry, it says:

"Mr. DOWNING thought well of *Vail's August Duke*; one of the most promising of the new cherries. Something like *May Duke*, but *several weeks earlier*."

This should be "several weeks later." The time of ripening is from the last week in July to the first or second week in August.

FRUIT-GROWING IN NORTHERN CANADA.*

EDS. GENESEE FARMER:—Our attempts at fruit-growing for the last ten years have proved nearly a total failure. I mean apples chiefly, with a few pears, plums, grapes and strawberries. The grapes and strawberries, with winter protection, and the latter even without it, generally do pretty well; the *Large Early Scarlet*, *Burr's New Pine*, *Crimson Cone*, *Hovey's Seedling* and *British Queen*—the three former the most prolific.

We had a large importation—thousands upon thousands—ten years ago from one of your nurseries, of the most reputed named apples. Scarcely a tree of that importation is now alive. Some of these trees have struggled through life so as to show a few specimens of their produce, and in the genuineness of their kinds I believe we were not deceived. I have some of these trees, but out of fifty, only one has borne.

More is said than is true about bad planting and nursing—in our case, at least. Our want of success is more to be attributed to our boreal climate, and adverse seasons, so far as I am capable of judging. For the last ten years, I have amused myself by giving a good deal of attention to fruit-growing, and have come to the conclusion that we are too far north to be very successful with the apple or pear. Still, there may be some hardy kinds that might succeed with us. The various Siberian Crabs have hitherto proved hardy with me, and bear freely.

I have still some relics of the Rochester trees (about twenty), that have never brought any fruit to perfection. Still, the roots of these trees are fresh and healthy apparently, as they throw out every year strong and vigorous shoots about the collar and above the graft, but these are generally killed the first winter. I budded and grafted from these trees on native stock, and planted out some hundreds of them. Most of them promised well for some years, and the year before last many of them produced a little fruit (*Baldwins*, *R. I. Greenings*, etc.), and were fine plants—having bestowed a good deal of pains in training them, taking Mr. BARRY for my guide—but the winter of 1858-9, or perhaps the spring frost of the latter year, seriously injured them. They bore none and made very little growth. Their stems are now three to four inches in diameter, and, in looking over them the other day, I believe much of the wood and most of the buds are dead.

* This communication has been in type several months, but has been overlooked. It is still interesting, and we trust will elicit more information on this important subject. EDS.

My dwarf pears are mostly killed by what Down-
ING calls the "frozen-sap blight"; still, I have
some years a specimen or two.

The most of the orchards in this latitude suffered
severely last winter. About Montreal, many trees
were killed. Some of our first settlers, forty years
ago, who had been acquainted with fruit-growing
at home, planted out a few acres of seedlings
which have thrived well for many years. Some
of these trees have been pointed out to me that
have carried thirteen or fourteen bushels in a season.

What I have related apparently shows that to
attempt to grow the apple and pear in this latitude
(45°) is very precarious. Still, our crabs proving
hardy, there is some ground for hope that some
hardy kind may be found that will thrive with us
and prove good fruit. It appears to me that it is
our severe spring frosts, after the sap is in motion,
followed by strong sunshine, that is the cause of
the evil.

I am trying peaches, and have, with protection,
brought them through two winters, and anticipate
the pleasure of seeing some fruit on them the
ensuing summer.

I grow two kinds of grapes in the open air
(black and white) quite successfully, on the renewal
system, and have generally from fifteen to twenty-
five bunches on a vine. Some clusters of the white
weigh over a pound, and have generally pretty
well ripened by the middle of September, and,
when urged, a little earlier.

I had a fine specimen of the *Reine Claude de
Bavay* plum, but it was killed last winter after
giving one crop. I have some thrifty young shoots
from it. I have not succeeded with the *Washing-
ton*, *Imperial Gage*, and some others; neither have
I succeeded with the *May Duke* and *Black Tar-
tarian* cherries.

Some of the most noted gooseberries have done
pretty well with me. Last year I had a good
crop.

I do not think it is insufficient culture that is the
cause of failure with me, for I have always found
that my growth was too luxuriant in most seasons.
I have had it from three to between four and five
feet on apples, plums and pears, thus becoming
more liable to be winter killed.

I had some specimens of plums sent me by an
amateur in Montreal, a few years ago, which
thrived very well with him, and had the pleasure
of plucking some of the fruit from the parent trees.

My soil is a loam on a marly clay subsoil, and in
my nursery plot, if I leave a young plant for two
or three years in it, I find it always deeply imbedded
in this subsoil—I mean the leading roots.

Aruprior, C. W.

AND. RUSSELL.

WINES OF ITALY.

THE Hon. J. S. CABOT, in a letter published in
the *Magazine of Horticulture*, says:

"As you may well suppose, from the number of
vineyards, there is much wine made in Italy. These
may be divided into two classes, sweet and dry,
perhaps I might say acid, for all this last class are
more or less so, and each of these again into many
varieties, taking the name of the town or district
where produced, there being generally a red and
white wine of each variety. All of the wine of

which I have tasted seems to me light, without
much strength—not more than belongs to good
bodied cider; indeed, one of the sweet kind seemed
to bear a strong resemblance to good cider, except
in this, which gave it the advantage in my opinion,
that it had the flavor of grapes instead of apples.
Many of these wines are very pleasant, with a
good deal of flavor, and if at first not entirely
agreeable, they from use become so. Some of the
principal wines in Southern Italy are—the *Lachry-
ma Christi*, a product of the vines that grow on the
slopes of Vesuvius; *Capri*, that takes the name of
an island at the entrance to the Gulf of Naples;
and the *Falerian*. These are all somewhat acid,
bearing more resemblance to the Bordeaux wines
than to any that I now remember, although each
with its own distinct and peculiar flavor—the first
having, in my judgment, the preference. The *Mus-
catel de Syracuse* is a sweet wine, of a decided and
very peculiar flavor—that of the richest raisins—
and to those fond of a sweet wine it is very agree-
able. The *Montefiascone* and *Orvieto* are very
pleasant wines, without the acidity of the three
first named or the sweetness of the last. The *Ale-
atico de Firenze*, the *Chianta*, and the *Montepul-
ciano* are Tuscan wines—the first a sweet wine, with
somewhat of the flavor of the *Muscatel de Syra-
cuse*, though not as decided or as rich, and the two
last dry, the *Montepulciano*, to my taste, being the
richest and best flavored of the two. One of the
pleasantest wines for a light table wine that I saw
in Italy was at *Genoa*, called the *Aste Blanc*, re-
sembling our very best cider, but with the flavor
of grapes instead of apples. The *Vin ordinaire* is,
everywhere that I have seen it, very indifferent,
and I presume seldom drank by strangers or those
who can afford anything better. Wine is a common
beverage, and Italy, as it seems to me, affords a
strong instance confirmatory of the opinion of such
as maintain that a free use of light wines, prevent-
ing that of ardent spirits, is conducive to temper-
ance; for I have never seen, in any part of the
peninsula, a person under the influence of intoxi-
cation."

CANADIAN APPLES IN ENGLAND.—The *Toronto
Globe* says: "An enterprising attempt has been
made by a Niagara farmer to open a new market
for Canadian fruit, which is deserving of mention.
Mr. R. N. Ball, shipped last season eighty barrels of
apples of his own growth to Glasgow, and received
such a return as will induce him to send a large
quantity during the present season. He realized
one-half more than he could have done here, under
the most favorable circumstances. This is business
into which it is not possible for mere speculators to
enter with success. The apples must be good, well
picked, and carefully packed. The careful farmer
who will attend to these things himself, may have
an ample return from England. The demand there
for good fruit, at prices which would be considered
high in this country, is almost unlimited. In every
part of Canada apples can be grown with consid-
erable profit, yet how few there are who make it
their business to secure good varieties, to look well
to the condition of their orchards, and prepare the
produce for market as carefully as they treat their
wheat or oats? We actually send to the States for
apples to be consumed in our cities."

BLANCHING CELERY WITH SAWDUST.—A correspondent of the London *Gardeners' Chronicle* recommends the use of *sawdust* for blanching celery, as he finds it to answer the purpose better than any other material, and is especially valuable for the late crops to be kept during the winter. He says: "Having had some trouble in the winter of 1857 in keeping late celery from rotting in a new kitchen garden, where the soil was very retentive and damp, and the plants earthed up in the usual manner, I have since used sawdust for the purpose, and find that it answers perfectly. Last winter all the late celery was earthed up with sawdust, and it kept quite sound till April, and no slugs or insects attacked it underground, the heads being very solid, clear and crisp, and well flavored. I had some doubts that the sawdust from resinous trees might give the celery a disagreeable flavor, but on trial I found this not to be the case, and the sawdust is now taken indiscriminately from the sawpits, where different kinds of trees are sawn up. Before the late severe frost occurred in October I had just finished the earthing up of all the late celery with sawdust, and I find it is now wonderfully fresh, the frost not having penetrated far through the surface to the hearts."

Another correspondent recommends charred earth in preference to sawdust, "as it will not only answer the purpose as well, but will allow the rain water to percolate more freely to the roots of the plants, and be of infinite service to a soil of a damp, retentive nature." The sawdust, he thinks, will induce an injurious growth of fungi in the soil.

RARE OCCURRENCE—**STEPHANOTIS FLORIBUNDA** IN FRUIT.—A specimen of this fine exotic—the same I had on exhibition at our June show—having lately produced a handsome egg-shaped fruit, I should be glad to obtain through you or your correspondents some information in regard to its nature—whether eatable or worthless, or whether or not it has been known to fruit in this country before. The single specimen on my plant began to swell about the middle of July last, and is apparently still on the increase. It is now about five inches long, and at the thick end—that next the stalk—it measures six inches in circumference. It continues to be of a dark green color, but will probably change to a paler hue on approaching maturity.—**JAMES CRAIB, Gardener to S. MATTHEWS, Esq., Rochester, N. Y., Aug. 21, 1860.**

TOMATOES FROM CUTTINGS.—**JAMES CRAIB, gardener to S. MATTHEWS, Esq.,** informs us that his tomatoes raised on cuttings were earlier and finer than those produced on the plants from which the cuttings were taken.

DAHLIAS.—A correspondent of the *Boston Cultivator* states that he has two dahlias in his garden which are eight feet and three inches high, and one of them has thirty-two blossoms on it.

PEACHES.—A correspondent of the *Ohio Cultivator* asserts that the only way to make sure of a crop of peaches every year, is to graft upon the wild plum stock.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

BAKED EGG-PLANT.—Parboil it until it is soft enough to stick a straw into; then cut it just in half; scoop out the inside, leaving the hull; chop it up very fine, and season very highly with pepper and salt, a good deal of butter, and crumbs of bread. Mix all well together and return it into the hull; then strew crumbs of bread on the top, and bake it for about an hour.

CALVES' FEET BLANC MANGE.—Boil four feet in five quarts of water, without any salt. When the liquor is reduced to one quart, strain it and mix with one quart of milk, and add several sticks of cinnamon or a vanilla bean. Boil the whole ten minutes, and sweeten it to the taste with white sugar; strain it and fill your moulds with it.

PIE-PLANT PUDDING.—To one quart of buttermilk, add one egg, one large teaspoonful of soda, and flour enough to make a thick batter. Have ready half a dozen stalks of pie-plant, cut up fine; stir it in the batter. Tie it tightly in a bag, drop it in a kettle of boiling water, and let it boil an hour. Serve with cream and sugar.

CELEBY SAUCE FOR BOILED FOWLS.—Wash the stalks, and cut them into thin slices about two inches long. Stew them till tender in a little weak gravy or water. Season with powdered mace, pepper and salt; then add the juice of a lemon, and thicken with a small piece of butter which has been kneaded in flour.

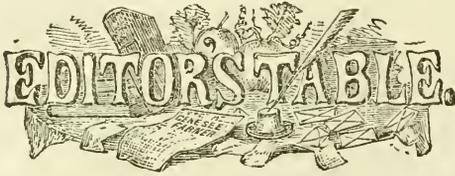
TO PRESERVE PUMPKIN.—Take good, ripe pumpkins, pare, and stew as dry as possible; place in the oven on a sheet, and let it remain until thoroughly dried, not baked; then stow away in a dry place, when it will keep an indefinite length of time—only requiring to be soaked in milk a few hours before using.

PIE CRUST.—Take one pint of buttermilk, one large teacup of lard, one teaspoonful of salt, one teaspoonful of saleratus, and flour enough to form a dough. Mix the lard and flour by rubbing them together; then add the other ingredients, knead well, and it is ready to roll out. Tender and good.

FOR CLEANING SILK.—(*Correction from the July number.*)—Take equal quantities of alcohol—whiskey will do—soft soap made of wood ash, and molasses. Mix and rub with a cloth; afterward rinse in clear water once or twice, and dry it or wrap in cloth till ready to iron.

FRIED OR BROILED EGG-PLANT.—Parboil it; cut into slices and season very highly with pepper and salt; fry or broil it (as you do meat room) in a pan with butter. It nicely done, it is very similar in flavor to the mushroom.

TO PRESERVE RHUBARB.—Cut the stalks into pieces an inch or so in length; string and dry the same as apple, and stow away in a dry place for winter and spring use.



New Advertisements this Month.

Sewing Machines—Grover & Baker S. M. Co., New York.
 Electric Weather Indicator—Lee & Co., Newark, N. J.
 Apple Grafts—Barnaby, Teas & Shephard, Raysville, Ind.
 Stencil Plates—Geo. B. Bridgdon, Norwich, Ct.
 Fruit and Ornamental Trees—Ellwanger & Barry, Rochester, N. Y.
 Improved Cattle and Sheep—John Snell, Edmonton P. O., C. W.
 East New London Nurseries—W. H. Starr, New London, Ct.
 The House and Garden—Tho. Brown, Cleveland, Ohio.
 The Hydrepult—American Hydrepult Co., New York.
 \$100 per Month—S. Whitley, Jr., Geneva, N. Y.
 Plum Trees—C. Reagles & Son, Schenectady, N. Y.
 Pomona Garden and Nursery—Wm. Parry, Cinnaminson, N. J.
 The Electric Telegraph—Tieknor & Field, Boston, Mass.
 Farms for Sale—McQuigg & Hyatt, Flint, Mich.
 Apple Stocks—P. Bowen & Co., East Aurora, Erie Co., N. Y.
 Drain Tile Machinery—F. M. Mattice, Buffalo, N. Y.
 Cherry Seeds—Frost & Co., Rochester, N. Y.
 Rochester Central Nurseries—C. W. Seelye, Rochester, N. Y.
 The Elizabeth Grape—Do do
 Rochester Wholesale Nurseries—Hooker, Farley & Co., Rochester, N. Y.
 Rochester Commercial Nurseries—H. E. Hooker & Co., Rochester, N. Y.

THE GENESEE FARMER FOR 1861.—Never, during the whole thirty years it has been published, have the prospects of the *Genesee Farmer* been so flattering as at the present time. With one exception, its circulation is *more than double* that of any purely agricultural or horticultural journal in this country, or, it is believed, in the world. Encouraged by this generous patronage, we are more than ever determined to spare no efforts to make it in every respect worthy of the continued support of the intelligent farmers and fruit-growers of our prosperous and highly favored country.

During the past three years the agricultural interests—and consequently all others—have been greatly depressed. With abundant crops and good prices a brighter prospect is before us; and we are sure our well-tried friends who have, during the "hard times," doubled and quadrupled our circulation, will not now cease their generous efforts. A little effort on the part of our agents and other friends of rural improvement will double our present subscription list, and from their repeated assurances of good will we are sure the effort will be made.

Now is the time to begin.

There are thousands of farmers who are not now taking the *Genesee Farmer* or any strictly agricultural and horticultural journal. To reach this large class, we have determined to make *all* who subscribe for the next volume at this time a *present* of the three remaining numbers of this year. In other words, we will send the October, November and December numbers of this year, and the entire volume for 1861, for *fifty cents*. For additional inducements to agents to extend the circulation of the *Farmer* at this time, see Premium List on last page of this number.

NOTES ON THE WEATHER FROM JULY 15TH TO AUGUST 16TH, 1860.—The average heat of the last half of July was 67.7°, which is 3.5° below the mean for 23 years; and the mean heat of the month was 4° below that of July for those years. July has, of course, been rather cool. The highest heat was on the 19th day at noon—88°; while in 1859 the highest was July 18th—96°. The 23d was preceded by a week of very hot days in St. Louis and farther South: the heat moved slowly North, and the three hot days in New York were closed by the great rain of the 26th over that part of the State. During that week the weather was pleasant and fine over this section.

The principal rain fell, in the last half, on the 16th, the 19th, some on the 27th, and much on the 29th. In the month there was measured 4.498 inches. This, with that of June, 2.382 inches, brings up the proportion nearly, as in the first five months there fell 7.24 inches, and in June and July 6.88 inches—making in the seven months 14.12 inches. In this section the rain is adequate, but in middle Virginia, near the Blue Ridge, the drouth has been severe, and also over a part of Mississippi.

The month has been very pleasant; vegetation matured or advanced; and the fruits and productions of the season abundant and fine.

The chief cutting of wheat was in the third week of July, and by the 25th the principal part was fully secured. The new wheat is somewhat in market.

Violent winds and storms continue, but less frequent and less destructive. Heavy storm of rain and wind about Chicago on the 20th; and on the 21st at Uxbridge and vicinity, Mass.; terrible tornado on 26th at and near Camden, N. J.

The great weather phenomenon was the blast of hot wind, on the 8th, in Iowa, which killed animals and two men, from 10 to 3 P. M. Another on the 10th, near Independence, Mo. On the 19th, at Covington, Geo., a hot blast of wind killed cotton, on a plantation, about 300 feet wide. Are simoons to be known in the South of our country?

On the 20th, the splendid meteor passed south of us, from north of west to south of east, at distance of 35°.

August opened with weather rather cool, and has been cool to the middle. The average heat was 67.9°, or near 3° below the mean for 23 years. The hottest has not been above 85°, and the lowest at 52°, when the furnace was a luxury in the morning.

Quantity of rain adequate, principally on the 3d, 7th, and 13th. Dew has fallen from leaves of shrubs, and from the eaves, especially of metallic roofs.

Vegetation has advanced in due proportion. Peaches from the city and near it were ripe in the first week of August, and were sold for sending abroad before the 15th; they are large and luscious. Fine plums are common.

A large meteor passed over North Carolina and Tennessee, from south-east to north-west, on the 2d; and another on the 7th, in the early twilight, further north, but south of this, and the direction nearly from south of east to north of west. As these moved more nearly in a direction opposite to that of the earth, they disappeared in a few seconds.

On the 2d, another hot blast of wind near Westport, in Missouri.

So far the weather and season have continued to be excellent this half month. Health also is a great and general blessing.

AGRICULTURAL FAIRS.—We published last month a list of the forthcoming Fairs, and the time and place where held. This month we give those we have since been able to obtain. There are in all *four hundred and two!* We would here return our thanks to the Secretaries of the various Societies for their co-operation in this matter. It is owing to their kindness that we are able to furnish such a complete list. There are doubtless many omissions; but it is, on the whole, the fullest list ever before published.

The list gives us some idea of the vast influence and importance of these annual exhibitions. Estimating the average attendance at 2500, they will be witnessed by over one million persons.

WHITE MEDITERRANEAN WHEAT.—Several of our readers have written to us requesting us to send them some seed of the White Mediterranean wheat, alluded to in the last number of the *Farmer*. We have none of this sort ourselves. It was grown by Mr. JOHN C. McVEAN, of Scottsville, Monroe Co., N. Y. He has only a few bushels to spare. He informs us that he will send it to any of our readers who desire it for four dollars a bushel—the parties ordering to pay freight or express charges. Mr. McVEAN has shown us a sample of the grain, and it exceeds our anticipations. It is nearly as white as the Soules, and the berries are much larger.

We would call the particular attention of our agents, and all who are willing to extend the circulation of the *Farmer*, to our offer to send the *Genesee Farmer* free for the remainder of this year to all who subscribe at this time for next year. No one need be without an agricultural paper when, for *half a dollar*, they can get one for fifteen months. Will not all our friends tell their neighbors of this offer, and take and forward us their subscription? Read the Premium List on the last page, and see what you can do for us. Now is the time to commence taking subscriptions.

INTERNATIONAL TRIAL OF REAPING MACHINES IN FRANCE. A trial of Reaping Machines took place at Fouilleuse, July 30. There were fourteen machines on the ground. Of the foreign machines, the first prize was awarded to BURGESS & KEY's "McCormick," 2d, BELL's, 3d, CUTHBERT's, and 4th, CRANSTON's "Wood." The grain was altogether too green for cutting, and the machines made rather poor work. The Emperor NAPOLEON witnessed the trial.

THE HYDROPULT.—This is a new portable machine for throwing water. For syringing plants in green-houses and in the garden it is the best thing we have yet seen. A child can work it, and it will throw a stream of water forty or fifty feet high. The machine can be seen at this office.

THE CROPS IN NOVA SCOTIA.—Mr. W. A. BANCROFT, of Nova Scotia, writes us that the weather in that Province has been remarkably dry this season. There has been but one rain till recently since spring. Crops are consequently light as a general rule.

Our friends at post-offices where we have but one or two subscribers, would greatly oblige us if they would act as agents for the *Farmer*. Our offer to send the remaining numbers of this year *free* to all who subscribe now for next year, will render it very easy to get subscribers. Will not our friends, will not *you*, kind reader, speak to your neighbors on the subject. Our list of Cash Prizes for the greatest number of subscribers will be found on the last page. Persons residing in places where we have now few subscribers, have now a rare opportunity for introducing the paper, and can easily secure one of the highest of these Prizes. Show-bills and specimen copies will be sent free on application. If you can not act as agent for the *Farmer* yourself, will you oblige us by asking the Postmaster or some active friend of the cause to do so?

LEVI BARTLETT, OF WARNER, N. H., has sent the *Country Gentleman* an ear of oats seventeen inches long. He also sent ears of wheat which contained, according to the editor of the *C. G.*, *Michigan Tuscan* 70, *Early Japan* 56, *White Flint* 55, *Blue Stem* 42, and *Early Noe* 28 kernels each. Last year Mr. BARTLETT's *White Flint* weighed 66 lbs. per bushel, and this year he says there are scores of farmers in his town that have grown fine crops of winter wheat, and the spring wheat is super-extra. Mr. B. is doing much to demonstrate that wheat can be raised in New England.

A NEW PLOW.—We recently witnessed a trial of a new plow, invented and patented by G. H. MOORE, of this city. It is intended to cut a rectilinear furrow-slice, thus exposing the greatest amount of soil to the action of the sun and air. The construction of the share and mould-board is such as to present the least possible amount of resistance in its course, and we are informed that in several trials with several plows of notoriously light draught, it greatly exceeded them in that desirable particular.

THE numerous Fairs to be held during the months of September and October will be a good time to present the claims of the *Genesee Farmer*. Will not all our friends, who can do so conscientiously, recommend it to their neighbors who do not now take it? Surely, no farmer can object to pay half a dollar for *fifteen months' subscription* to a paper devoted solely to his interests!

THE CROPS—PRICES, ETC.—While we believe that there is a tendency to over-estimate our agricultural productions, there can be no doubt that the crops this season have been unusually large. Still, with a deficient crop in Great Britain, and with a light stock on hand in this country, we may anticipate good prices.

"THE little *Genesee Farmer*, at Rochester, is like a Morgan pony—mighty good in speed and bottom."—*Ohio Cultivator*.

Thanks, Colonel; but why call the *Genesee Farmer* "little?" It is *just double* the size of your own most excellent journal.

FARMER SHOW-BILL FOR 1861.—This will be ready in a few days. All our agents and other friends who will post them up in a conspicuous place will receive them free on application.

FIFTEEN MONTHS IN THE YEAR.—All who subscribe for the next volume of the *Genesee Farmer* at this time will receive the three remaining numbers of this year free. Fifteen months for half a dollar! Will our friends tell their neighbors of this most liberal offer? It will only be continued a few weeks. Our object is to introduce the paper into places where we have now but few subscribers.

OUR FRIENDS who are competing for the Cash Prizes offered for the largest club of subscribers to the current half-volume of the *Genesee Farmer* must recollect that the time expires October 15. For terms, etc., see the August number of the *Farmer*. Few are competing for these Premiums. A little effort now will secure them.

Inquiries and Answers.

MOWING OFF THE TOPS OF DISEASED POTATOES.—(R. L.) This has been frequently recommended, and we have seen statements which would indicate that it is sometimes beneficial; others report unfavorably. As you wish our "opinion," we would say that we have little faith in the efficacy of cutting off the tops. We once mowed the tops off a part of a field of potatoes just as the tops were affected, and the crop on this part was much smaller than on the remainder of the field—and we could see no difference in the potatoes so far as the disease was concerned.

MUCK FOR COMPOST.—(T. B.) We know of no easy test for determining whether there is iron in your muck in an injurious form. The muck would doubtless be useful on the dry, sandy uplands. It would be best to compost it with manure, or perhaps with ashes, lime and salt, but if this can not be done, we would try a little applied in the raw state.

ARBOR VITE FOR SCREENS—FRUIT BOOK.—(Wm. L., *Mattitville, Pa.*) For a screen for an orchard, Arbor Vite may be planted six or eight feet apart. It will take about ten years to get a screen ten feet high, by planting trees eighteen inches in height.

The *Fruit Garden*, by P. BARRY, is a valuable work on the subject of which it treats.

BUDDED STOCKS.—(J. D., *Gates, N. Y.*) Two or three weeks after budding, the bands may be taken off, and in the spring following the stocks headed down within three or four inches of the bud. In July, the remaining portion may be cut off, close down to the bud.

NAILS IN FRUIT TREES.—(J. H. T., Jr.) Nails driven into fruit trees can never, by any process of decay or chemical change, produce ammonia: and will not in any event affect the particular qualities of the tree, either in wood, bark, foliage or fruit.

SILVER MAPLE.—(E. A. F., *Edgerton, Ohio.*) The seed of the Silver Maple, if gathered as soon as ripe as sowed immediately, will be found to vegetate freely.

PLANTAIN.—(J. B., *Scalp Level, Pa.*) The most effectual way to exterminate plantain is to pull it up by hand. Plowing it under, cultivating the soil for a year or two, and then sowing the ground thickly with grass seed, will probably rid you of it as well as any process, and result in doing good to the soil. Hogs are very fond of plantain, and if pastured upon it would doubtless succeed partially, if not perfectly, in accomplishing your purpose.—BOWLES, *Hamilton Co., O.*

TIMBER FOR FENCING, etc.—Some of our farmers here in the town of Gorham are getting rather scarce of timber. Most of us have timber enough for fire wood; but when it comes to rail timber and sawing, we have to split some pretty tough rail cuts, and we have to take some rough logs to the mill. Some farmers go ten or twelve miles, and pay \$30 or \$40 per 1,000 rails, or \$10 per 1,000 for fence boards, near home. Only a few are doing anything with hedges. Some have for a few years been trying the Osage Orange, and I believe they do well. I think we ought to improve our timber lands, by shutting up or keeping the cattle entirely out of the woods, so that all the sprouts that are springing up from year to year may be suffered to grow and not be browsed off by the cattle; and also by planting out occasionally a few acres for timber. I should like to have your opinion or that of some of your numerous correspondents about raising timber; what kind of timber would be best; what time of the year it should be planted, and how; in rows or hills, and how far apart; what kind of preparation of the soil, and anything else connected with this subject.

I have eight acres of timber land that has been shut up five years. Where the trees are open, the second growth comes up very thick and is growing rapidly. It consists mostly of sugar maple, although there is plenty of elm, iron-wood, bass-wood, beech, and some ash.—NATHANIEL SMITH, *Gorham, N. Y.*

DECADENCE OF MELON VINES.—A large portion of the melon vines throughout this section of the country are in a state of decay, and many of the patches have died out entirely. The early part of the season was dry, melons thrived well, and the promise of an unusually large crop was fair. A wet spell ensued, lasting two weeks, and now the vines are in the state already mentioned. Can you or any of the readers of the *Genesee Farmer* give us the reason—whether it is occasioned by the wet, by too highly manuring, or any other cause? It is a rare occurrence here.—BOWLES, *Hamilton Co., O.*

GRAVEL HOUSE.—Will you or some of your readers inform us of the best method of building what is called a gravel house; whether they are durable or a desirable kind to build; and if so, the proportion of materials, as gravel, lime, etc., the depth of box for wall, and how constructed to raise easily; what size gravel is best, and if it should be clear of rubbish, as dirt, etc. Also, what is the difference between common (or yard) and yellow locust—no honey? Which is preferable for a grove, in beauty of foliage and growth; and whether the yellow locust will send up shoots from the ground?—E. S. Cox, *Randolph Co., Ind.*

FROG-SPITTLE IN FISH PONDS.—I have seen nothing yet to satisfy me why what is generally called "frog-spittle" grows in pure water. My fish pond was full of it a short time after I filled it with water, but it soon rose to the surface and floated off. Last month it commenced growing again, and the pond is nearly filled with it. My trout can only be seen when I feed them. Will it hinder their growing? If you or some of your numerous readers can give me any information on the subject, I should be very glad. What is the best food for trout?—A. H. CURTIS.

DAIRYING IN THE WEST.—I intend going into the dairy business; and as there is nothing of the sort about here, I should be glad if some one who has had experience would give us an article on the manufacture of good cheese.—J. H. STOUT, *Greene Co., Ill.*

PRESERVING FRUIT.—Please ask your readers if any of them know a good plan to preserve specimens of fruit in their original size, shape and color, so as to be shown as actual specimens of what have been grown.—A. V. D., *Falmouth, Va.*

ROTTEN TAN-BARK.—I would like to know if there is any virtue in old rotten tan-bark (say from ten to twenty years old) as a manure; and if so, what crop is it most suitable for?—J. H. T., *New Providence, Tenn.*

TRIMMING WOODLAND.—Can you or some of your correspondents tell me what time of the year is the best to trim timber in woodlands?—W. W. G., *Grapevine Bottom, Ky.*

Books, Pamphlets, &c., Received.

BRIGHT'S SINGLE STEM, DWARF AND RENEWAL SYSTEM OF GRAPE CULTURE; Adapted to the Vineyard, the Grapery, and the Fruiting of Vines in Pots, on Trellises, Arbors, etc. By Wm. BRIGHT, Philadelphia. New York: C. M. SAXTON & Co. Price 25 cents.

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Part 15. New York: D. APPLETON & Co. Price 15 cents per number.

CASELL'S POPULAR NATURAL HISTORY. Profusely Illustrated with Splendid Engravings and Tinted Plates. Published in parts on the 1st and 15th of each month. No. 5. Price 15 cents. New York: CASELL, PETER & GALPIN, 37 Park Row.

THE YOUNG HOUSEKEEPER and Dairymaid's Directory; Containing the most valuable and original Recipes in all branches of Housekeeping, and the whole art of making Butter and Cheese. By Mrs ELIZA A CALL, Fabius, N. Y. Price 25 cents.

POPULAR ASTRONOMY; A Concise Elementary Treatise on the Sun, Planets, Satellites and Comets. By O. M. MURCHELL, LL.D., Director of the Cincinnati and Dudley Observatories. New York: PHINNEY, BLAKEMAN & MASON.

BOTH SIDES OF THE GRAPE QUESTION; Together with a Classification of Species and Varieties of the Grape Vine. Philadelphia: J. B. LIPPINCOTT & Co.; New York: C. M. SAXTON, BARKER & Co. Price 25 cents.

HOW TO CULTIVATE AND PRESERVE CELERY. By THOPHILUS RUSSELL of the Delevan House, Albany, N. Y. Edited with a preface by HENRY S. OLCOTT. New York: C. M. SAXTON, BARKER & Co.

NATURAL HISTORY. For the use of Schools and Families. By WORTHINGTON HOOKER, M.D., author of "Human Physiology," &c. Illustrated by nearly 300 engravings. New York: HARPER & Bros. Price \$1.

CASELL'S ILLUSTRATED FAMILY BIBLE. Published in Monthly parts on the 1st and 15th of each month. No. 6. 15 cents each; 24 numbers, \$3. By CASELL, PETER & Co., 37 Park Row, New York.

A SMALLER HISTORY OF GREECE, From the earliest times of the Roman Conquest. By WM. SMITH, LL.D. Illustrated by engravings on wood. New York: HARPER & Bros. Price 60 cents.

LOVEL THE WIDOWER. A novel, by W. M. THACKERAY, author of "Vanity Fair," "The Virginians," &c. With illustrations. New York: HARPER & Bros. Price 25 cents.

THE WEST INDIES AND THE SPANISH MAIN. By ANTHONY TROLLOPE, author of "Dr. Thorne," "The Bertrams," etc. New York: HARPER & Bros. Price \$1.

ROYALISTS AND REPUBLICANS; or The Companions of Jehu. By ALEXANDRE DUMAS. New York: E. D. LONG & Co., 26 Ann Street. Price 50 cents.

THE THREE CLERKS. A novel, by ANTHONY TROLLOPE, author of "The West Indies and the Spanish Main," &c. New York: HARPER & Bros. Price \$1.

CASTLE RICHMOND. A novel, by ANTHONY TROLLOPE, author of "Dr Thorne," "The Bertrams," &c. New York: HARPER & Bros. Price \$1.

RIGHT AT LAST, and other Tales. By Mrs GASKELL, author of "Mary Barton," &c. New York: HARPER & Bros. Price 75 cents.

DICERON ON ORATORY AND ORATORS. Translated or Edited by J. S. WATSON. New York: HARPER & Bros. Price 75 cents.

IRAN, THE HERMIT; Or, The Wonderful Lamp. By Rev. J. HYATT SMITH. Buffalo: BREED, BUTLER & Co. Price 50 cents.

HISTORY OF GENGHIS KHAN. By JACOB ABBOTT. With illustrations. New York: HARPER & Bros. Price 60 cents.

A MOTHER'S TRIALS. By the author of "My Lady." New York: HARPER & Bros. Price \$1.

DANESBURY HOUSE. By Mrs. HENRY WOOD. New York: HARPER & Bros. Price 62 cents.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

Agricultural Exhibitions for 1860—Continued.

STATE.		
<i>Nama.</i>	<i>Where Held.</i>	<i>Date.</i>
American Institute	New York	Sept. 26—2 weeks
Kentucky, N. E. Dist.	Ashland	September 13—20
Missouri, Central Dist.	Boonville	October 1—5
Missouri, S. E. Dist.	Cape Girardeau	" 11—13
Michigan	Detroit	" 2—5
North Carolina	Raleigh	" 16—19
Upper Canada	Hamilton	September 15—21

COUNTY.		
NEW HAMPSHIRE.		
Belknap		September 26—27
Carroll	Ossipee	" 19—20
Cheshire	Keene	" 25—26
Gratton	Littleton	" 19—20
Merrimack	Nashua	" 26—28
Merrimack River	Concord	October 10—11

MAINE.		
Kennebec	Readfield	October 9—11
North Aroostook	Presque Isle	" 3—4
Piscataquis	Dover	" 3—4
Sagadahoc	Topsham	" 9—11
Waldo	Belfast	September 10—12
West Washington	Jonesboro	" 27—28

VERMONT.		
Addison	Middlebury	September 5—7
Caledonia	St. Johnsbury	" 26—28

MASSACHUSETTS.		
Barnstable	Barnstable	October 9
Berkshire	Pittsfield	" 3—5
Bristol	Taunton	" 2
Bristol, Central	Myr eks.	September 26—27
E. sex.	Hamilton	" 25
Housatonic	Great Barrington	" 26
Hampshire	Amherst	October 11
Hampden	West Springfield	September 20
Hampden, East	Palmer	" 18
Middlesex	Concord	" 20
Middlesex, South	Frammingham	" 18
Middlesex, North	Lowell	" 13
Martha's Vineyard	West Tisbury	October 16
Norfolk	Dedham	September 27
Plymouth	Bridgewater	October 4
Worcester, West	Barre	September 27
Worcester, North	Fitchburg	" 25
Worcester, South	Sturbridge	October 4

NEW YORK.		
Cayuga	Auburn	September 12—14
Chenango	Norwich	" 13—20
Delaware	Rotart	" 26—27
Franklin	Malone	" 13
Genesee	Batavia	" 13—19
Jefferson	Watertown	" 19—20
Niagara	Lockport	" 27—29
Otsego	Cooperstown	" 26—27
Tioga	Owego	" 26—27
Union	Trumansburgh	" 11—13
Wyoming	Warsaw	" 19—20

PENNSYLVANIA.		
Alleghany	Pittsburg	September 4—7
Chester	West Chester	October 5—6
Crawford	Meadville	September 13—20
Highland	Johnstown	" 27—29
Philadelphia	Powelton	" 25—28
Wattsburg	Wattsburg	" 26—27

TENNESSEE.		
De Kalb	Alexandria	
Fayette	Somerville	October 3—6
Hardin	Savannah	" 2—6
Hickman	Centerville	" 9—15
Montgomery	Clarksville	" 23—27
Shelby	Memphis	" 9—15
Wayne	Waynesboro	" 16—20
Wilson	Lebanon	" 2—6

MISSOURI.		
Bates		October 17—20
Benton		September 25—27
Clarke	Waterloo	" 13—15
Cass	Pleasant Hill	September 11—14
Howard	Fayette	August 29, epl. 1
Lafayette	Lexington	October 2—6
Newark	Newark	September 3—7
Osgue	Linn	October 4—5
Platte	Platte City	September 25—30
Saline	Miami	" 4—8

KENTUCKY.			
Bourbon	Paris	September	4-7
Logan	Russellville	"	11-14
Owen	New Liberty	October	2-6
Salvisa	Salvisa	"	2-5
Shelby	Shelbyville	August	23-31
Union	Eminence	September	25-28

MISSISSIPPI.			
Clairborne	Port Gibson	November	13-16
Franklin	Meadville	October	11-13
Jefferson	Rodney	November	6-9
Panola	Panola	"	6-9
Pike	Summit	"	7-9

MICHIGAN.			
Horse Show	Kalamazoo	September	11-14
Sauwassee	Corunna	"	20-21

INDIANA.			
Montgomery	Crawfordsville	September	18-21
Posey	New Harmony	October	2-5
Fountain	Attica	"	10-12
Noble	Albion	"	3-4
Orange	Livonia	"	8-13
Spencer	Rockport	"	10-11
Stenben	Angola	"	4-5
Union	Goshen	September	25-28
Union	Bridgeton	"	18-21

ILLINOIS.			
Adams	Quincy	October	2-6
Henry	Cambridge	"	3-5
Jo Daviess	Galena	September	11-14
Knox	Knoxville	"	25-28
Livingston	Pontiac	"	18-20

OHIO.			
Ottawa	Port Clinton	October	3-6

WISCONSIN.			
Badaxe	Virgins	September	10-12
Columbia	Cambria	"	13-20
Jackson	Albion	"	18-19
Monroe	Sparta	"	26-27
St. Croix	Hudson	"	18-19
Sheboygan	Sheboygan Falls	"	19-20
Wausara	Wautoma	October	10-11

NEW JERSEY.			
Somerset	Somerville	September	11-13
Sussex	Newton	October	2-5
Warren	Belvidere	September	11-14

MINNESOTA.			
Rice	Faribault	September	20

IOWA.			
Clinton	Camanche	October	10-12

TOWN AND DISTRICT.

NEW YORK.			
Afton	Afton	September	12-18
Arcade	China	"	13-14
Attica	Tonawanda Valley	"	26-27
Belleville	Ellisburgs, Adams, &c.	"	13-14
Brockport	Union	October	2-3
Canastota	Farmers' & Mech. Ass.	September	23-29
Camden	Camden	October	3-4
Columbus	Columbus	"	5-4
Clymer	Clymer	September	10-20
Dansville	Canasraga	"	13
Gouverneur	St. Lawrence Co.	"	13
Medina	Ridgeway, &c.	"	12-14
Nunda	Genesee Valley	"	13-15
North Jay	Vienna	"	13-19
Oxford	Oxford	October	2-4
Palmira	Wayne	"	2-4
Smithville	Town	September	6-7
Seneca Falls	Seneca Falls	"	18-20
Sherburne	Sherburne	"	26-28
Sherwood's Corners	South Cayuga	"	11-12
Shanentles	"	"	25
Unadilla	Susquehanna Valley	"	25-26

OHIO.			
Ashtabula	Ashtabula Co.	September	24-26
Belmont	Belmont Co.	"	18-26
Conneaut	Ashtabula Co.	"	27-28
Cleveland	Horse Show	August	21-23
Cuyahoga Falls	Summit Co.	September	5-7
Jamestown	Greene Co.	August	29-31
Madison	Franklin Co.	September	18-20
Plymouth	Richland Co.	"	26-28
Richfield	Summit Co.	"	26-28

Salem	Columbiana Co.	September	12-14
Twinburg	Summit Co.	"	12-14
Wellington	Loraine Co.	October	10-12
Virginia	Wheeling Island	September	11-13
Zanesville	Mnkingham Valley	"	18-21

REVIEW OF THE MARKETS.

GENEEVE FARMER OFFICE,
ROCHESTER, N. Y., AUGUST 23, 1860.

ROCHESTER MARKET.—August 21.

FLOUR—Market lower. Millers selling spring flour East but not largely. Winter wheat, \$5@6.25; spring wheat, \$5@5.55.

GRAIN—White Wheat ranges principally between \$1.20@1.30; red, \$1.05@1.19. Corn, 50c, little offering. Oats, by weight, 30c. Rye, 62½c. Barley, 60c. Beans, 62½c.

PROVISIONS—Mess Pork, \$18.50@20. Hams—smoked, 11c @12½c. Shoulders 8c@9c. Butter sells freely at 13c. Cheese, 8c@10c per lb. Lard, 12½c@13c. Eggs plenty and a drug in the market at 9c per dozen. New Potatoes, 31@33c. Chickens, 10@12c. Turkeys, 12c.

WOOL—Hard, \$4@5.50; soft, \$3@4, with very little doing. HIDES—Slaughtered hides, 5½c. Calf skins, 10c. Sheep pelts, 19c.

SEEDS—Clover, \$5.50@8 per bushel. Timothy, \$4@4.25. Flax, \$1.05.

HAY—From \$7 to \$10 per ton.

NEW YORK MARKET.—August 21.

FLOUR—Ohio extras are comparatively firm and in good demand for the West Indies. Choice extras irregular, \$5@5.10 for superfine Western; \$5.23@5.35 for the low grades of extra do.; \$5.10@5.15 for superfine State; \$5.12½@5.15 for old extra do.; \$5.20@5.25 for do. Old Wheat, extra fresh ground; \$5.25 @5.30 for new extra State; \$5.35@5.40 for choice do.; \$5.30@5.40 for round hoop extra Ohio, and \$5.50@5.60 for St. Louis extras. Canada Flour heavy—\$5@5.05 for superfine and \$5.15 @5.70 for extras. Southern Flour steady—\$5.50@5.90 for mixed to good superfine Baltimore, &c., and \$6.00@5.70 for the better grades.

GRAIN—Wheat market easier. Good Milwaukee club, \$1.22; extra Iowa, \$1.25; mixed Chicago and Racine spring \$1.20; Red Western Ohio, \$1.23@1.25; Amber, Michigan, Illinois and Indiana, at \$1.26@1.28; white Ohio, \$1.30@1.31; choice white Michigan \$1.34@1.45; white Kentucky, \$1.50; red State, \$1.20. Rye quiet and lower at 75c@77c. Barley more plenty at 75c Oats dull but firm—sales of Western and Canadian at 87c@39½c and State at 39@39½c. Corn lower, at 60c.

PROVISIONS—The inquiry for Pork is limited at \$19.25@ \$19.57 for new Mess; \$19 for old do. and thin mess; \$18.12½ for old prime and \$14 for new do. Beef is in fair request and firm at \$4.87@6.00 for country mess; \$5.50@10.50 for repack'd mess, and \$11@12.28 for extra; Prime mess quiet. Beef Hams in fair demand at \$10@12 for State, and \$14@15.50 for Western. Bacon is scarce and wanted at 12½c. Cut Meats—Dry salted Shoulders at 93½c. Butter, 10c@15c for Ohio, and \$15c@20c for State, and choice do. 12@20c. Cheese, 7@10½c.

HAY—\$5@9½c per cwt.

PHILADELPHIA MARKET.—August 20.

FLOUR AND MEAL—Fresh ground Superfine at \$5.50. Rye flour, \$3.62½. Corn meal is dull at \$3.25@3.37½ for Pennsylvania.

GRAIN—The demand for Wheat is quite limited—White, \$1.3c@1.40; prime red, \$1.32@1.35; choice Kentucky white, \$1.55. Rye scarce, and new sells at 70@72c. Corn dull and lower—73 @75c for good yellow, and 71@72c for mixed Western. Oats—Prime Delaware, 34c; new Pennsylvania, 30c. Barley held at 85c.

PROVISIONS—Small sales of Mess Pork at \$19.75. City packed Mess Beef ranges from \$13 to \$14.50 cash. Bacon—sides 12 @12½c. Lard quiet—13½@14c.

SEEDS—Timothy declined at \$2.75@2.87½ per bush. Flaxseed is taken on arrival at \$1.62@1.63.

CHICAGO MARKET.—August 20.

FLOUR—Market active and 15@20c lower. Good spring wheat at \$4.50; fair at \$4.25; double extra, \$4.50.

GRAIN—Wheat—No. 1 spring at 85c; No. 2 do. 74@75c; No. 1 Red winter at \$1; No. 2 Red, 94c. Corn—No. 2 Canal, 40c; rejected, 35c. Oats—market quiet; No. 1 at 19c in store, and 21c on track. Rye active and steady—48c in store and 51c on track. Barley, 42c.

PROVISIONS—Potatoes—Market dull at 12½@20c as to quality. Eggs dull at 5@6c per doz. Butter, 9½@10c; choice dairy, 10@12c. Cheese market quiet—Hamburgh, 9@9½c; Western Reserve, 7½@8½c for fair to prime.

POULTRY—Live Chickens, \$1.25@1.50 per doz. Turkeys, 6@7c per lb.

CINCINNATI MARKET.—August 23

FLOUR—Market continues in the same position it has been for some time past; the demand quite moderate, and not equal to

the offering. The range continues to be \$4.50@\$.46 for fair to good brands: \$4.75@\$.50 for W. W. do., \$5.25@\$.57 for fancy.

GRAIN—Wheat market dull—Prime red 95c@98c and prime white at \$1.05@\$.110, and choice white \$1.12. Corn 38c@39c in bulk; shelled in fair demand at 52c@55c for mixed and prime white. Oats in good demand—Prime new, 29c in bulk. Rye market firm with a good demand at 65c@68c. Barley dull at 70c@75c.

PROVISIONS—Mess Pork in good demand at \$20.00. Bacon quiet at 9 1/2@12c. Cheese brisk at 7 1/4@8c for W. R., the latter rate for selected. Butter—Prime fresh in fair demand at 14@15c for Central Ohio.

CATTLE—Ordinary, \$1.75@\$.2.25; fair, \$2.25@\$.2.75; extra, \$3@\$.3.25 per cwt. Sheep from \$1.50@\$.2 per head. Lambs, \$1.75@\$.2. Hogs from \$5@\$.5.75 for stop fed, and \$5.75@\$.6 for corn fed.

HAY—Market firm, with a good demand at \$15@\$.16 per ton for prime Timothy in bales.

TORONTO MARKET.—August 16.

FLOUR—Quotations a little lower: Superfine, \$5.15@\$.5.20; fancy, \$5.30@\$.5.40; extra, \$5.90@\$.6; double extra, \$6.25@\$.6.50 per barrel.

GRAIN—For good white winter Wheat fit for seed as high as \$1.25 has been paid, but usually \$1.20; new wheat of prime quality, \$1.10@\$.1.20; spring wheat, \$1.05@\$.1.08 per bushel. Barley—new, 55@60c. Oats—prices unsteady at 32@34c. Peas in limited supply at 50@60c.

PROVISIONS—Fresh butter plentiful—15@17c, in some cases 18c; tub butter in good demand for shipment—prime No. 1, 12@13c. Eggs 15@16c per doz. Poultry dull at 25@30c for chickens and 37 1/2@40c for ducks per pair. Potatoes quiet—25@30c per bushel.

CATTLE—Beef—First-class heaves at \$5; second class at \$4@\$.4.50; inferior, 3@\$.4 per cwt. Sheep, \$3.50@\$.4.50. Lambs, \$1.75@\$.2.25. Calves, \$4@\$.5.50 each.

HAY—\$9@\$.12 per ton. Straw \$5 per ton.

HIDES—Beef Hides steady at \$5 per cwt. Sheep skins 50c each. Calf skins 10c per lb.

LIVERPOOL MARKET.—July 27.

FLOUR—Trade inactive and sales could only be made at reduced prices.

GRAIN—American white wheat, \$1.75@\$.1.83; red do, \$1.58@\$.1.68; Canadian white, \$1.65@\$.1.73; do, red, \$1.50@\$.1.62. Indian corn—white, \$1.02@\$.1.05; yellow, \$0.93@\$.0.94 1/2. All per bush. of 60 lbs.

LONDON MARKET.—July 30.

FLOUR—American sour, \$6.50@\$.7; sweet, \$7.25@\$.7.75.

GRAIN—Wheat—American white, \$1.59@\$.1.77; do red, \$1.50@\$.1.50. Indian corn—white, \$1.05@\$.1.14; yellow, \$1.05@\$.1.11, per 60 lbs.

BRIGHTON CATTLE MARKET.—August 16.

At market, 1200 Beeves, 200 Stores, 5000 Sheep and Lambs, 600 Swine.

PRICES—Market Beef—Extra, \$0.00; First quality, \$7.25@\$.7; Second, \$6.75; Third, \$5.50@\$.5.75. Milch Cows—\$45@\$.50; Common, \$19@\$.20. Working Oxen—85—90—100. Veal Calves—\$3.00@\$.4.00 Yearlings—N. m. Two Years old—\$10@\$.12. Three Years old—\$13@\$.17. Hides—6c@6 1/2c per lb. Calf Skins—10c@12c per lb. Tallow—6 @ 6 1/2c. Sheep and Lambs—\$1, \$1.50@\$.2; extra, \$2.50, \$3.00@\$.3.50 Pelts—\$0.50@\$.1.75. Swine—1 1/2 Hogs, none. Stores, wholesale, 6 1/2c; retail, 7c. Spring Pigs, 7 1/2; retail, 7 1/2@8 1/2c.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 25 to 34 per cent.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

200,000 TWO YEARS OLD APPLE STOCKS for sale. No. 1, \$3.50 per 1,000.
100,000 APPLE GRAFTS, wound with waxed cloth, delivered next March—\$5 per 1,000.
50 bushels APPLE SEED in season—\$5 per bushel.
 Sept.—24* P. BOWEN & CO., East Aurora, Erie Co., N. Y.

ROCHESTER COMMERCIAL NURSERIES.

(Established 1830.)

H. E. HOOKER & Co., PROPRIETORS.

THE Grounds of these old established and responsible Nurseries now comprise 200 acres in a thorough state of cultivation. The stock is unsurpassed in extent and in health and beauty of growth. Long and valuable experience enables us to grow trees and plants in the best manner; and with an extensive collection of specimen and bearing trees, we are confident in promising entire accuracy in labeling varieties. Our facilities for packing are now so complete that we can assure the safe transportation of packages to any part of the Union. We respectfully refer the public to our old patrons. The stock includes the following staple items: (For a more extended list see Catalogues, which will be sent free to all applicants.)

STANDARD FRUIT TREES FOR ORCHARDS.

Apples, Pears, Cherries, Peaches, Plums, Nectarines, Quinces. Dwarf Trees for Gardens.

Apples on Paradise Stocks, (bear immediately after setting.) Pears on Quince Stocks, including handsome bearing Trees. Cherries on Mahal B Stocks.

Small Fruits in Great Extent and Variety.

Currants, Strawberries, Gooseberries, Raspberries, Blackberries, &c. RHUBARB, ASPARAGUS, &c.

GRAPE VINES.

All the new *Hardy Native* sorts, including among others: Diana, Delaware, Concord, Hartford Prolific, Logan, Rebecca, To Kalon, Union Villars, Northern Muscadine, King, and many others. Some of these we consider great acquisitions.

Isabella, Catawba and Clinton by the large quantity, and all the *Foreign Varieties* for house culture.

IN THE ORNAMENTAL DEPARTMENT

Will be found every variety of DECIDUOUS ORNAMENTAL TREES, EVERGREENS, ROSES, HEDGE PLANTS, &c.

Sept.—24 H. E. HOOKER & CO., Rochester, N. Y.

ROCHESTER WHOLESALE NURSERIES.

WE take pleasure in calling the attention of the public to the immense stock of FRUIT TREES, &c., which we offer for sale this season. We have now about TWO HUNDRED ACRES of very fine land devoted to Nursery purposes, which, with our long experience in the business, enables us to furnish Stock of the FINEST QUALITY at the LOWEST WHOLESALE RATES.

We have arranged our business so as to do almost exclusively a WHOLESALE TRADE, consequently Nurserymen and Wholesale Buyers will find us better prepared to meet their wants than those who Retail the greater part of their stock.

The following are some of the principal items which we offer this season:

ONE MILLION APPLE TREES.

200,000 APPLE TREES, 3 and 4 years old.
 300,000 " " 2 " "
 500,000 " " 1 " "

10,000 STANDARD PEAR TREES, 1 and 2 years old.
 5,000 ORANGE QUINCE TREES, 2 years old.
 20,000 STANDARD CHERRY TREES, 1 and 2 years old.
 10,000 DWARF CHERRY TREES, 1 and 2 years old.
 20,000 PEACH TREES, 1 year old.
 10,000 PLUM TREES, 1 and 2 years old.

ONE HUNDRED THOUSAND DWARF PEAR TREES

GOOSEBERRIES

All the best English varieties. Also, 50,000 Houghton's Seedling, extra, very cheap.

CURRENTS—Of the following varieties: Cherry, Victoria White Grape, White Dutch, Red Dutch, Black Nipples, Black English, &c.—20,000.

RASPBERRIES, BLACKBERRIES, STRAWBERRIES, &c.

All the best varieties, in large quantities.

STOCKS FOR NURSERYMEN.

10,000 Mazzard Cherry, 1 year old, fine. 500,000 Apple Stocks, 1 and two years old—extra.

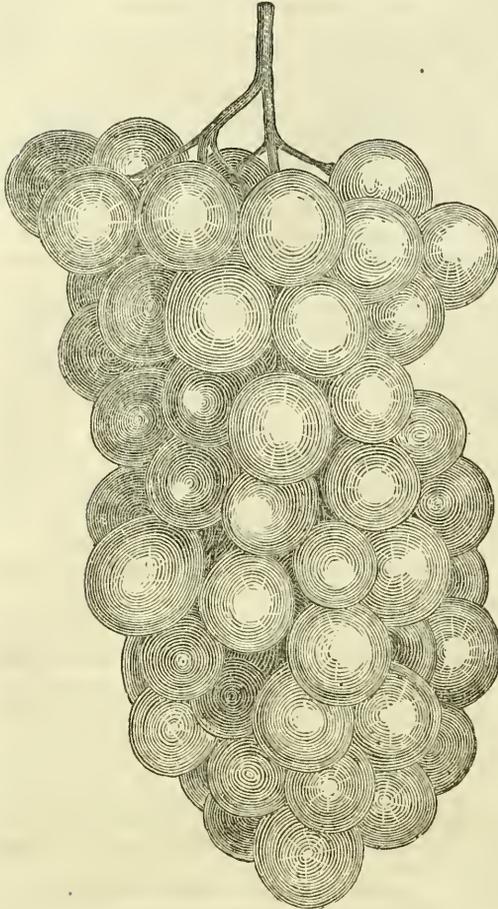
We desire to call particular attention to our splendid stock of **Choice Hardy Grapes,**

Of which we have a large quantity of all the best and newest varieties: Delaware, Diana, Concord, Rebecca, Northern Muscadine, Hartford Prolific, Logan, &c., &c., all of remarkably thrifty growth.

Also, a very fine assortment of EVERGREENS, ORNAMENTAL DECIDUOUS TREES, HARDY SHRUBS, ROSES, &c., &c.

HOOKER, FARLEY & Co., Rochester, N. Y.

THE ELIZABETH GRAPE.



THE subscriber offers for sale, at the Fall trade, fine strong plants of this new and beautiful hardy White Grape.

A full history and description of this Grape will be found in the *Genesee Farmer* of December, 1859, and in the *Rural New Yorker* in the issue of the 21st of July of the present year.

We can confidently recommend this Grape to the public as a hardy, thrifty and productive vine.

DESCRIPTION.—Bunches large, compact, sometimes shouldered; berries, large, oval; skin thin; color, greenish white, with a purple tinge in the sun; very little pulp, juicy, sweet, vinous, brisk and pleasant.

"We think this grape will prove valuable for wine, as it will yield a much larger quantity of juice than either *Isabella* or *Catawba*, sufficiently acid to render it well adapted for this purpose. The vine is healthy and hardy and a prolific bearer, and is much esteemed in its neighborhood, where the *Isabella* and *Catawba* are cultivated. It has been somewhat disseminated among the friends of the originator, and is fast coming into repute."—*Genesee Farmer*.

"At the Exhibition of the Monroe County Agricultural Society last Autumn, our attention was particularly attracted by a white grape, marked "*Elizabeth*." It was the first time we had heard anything of this variety, and we took some pains to ascertain its history, as well as to form an opinion of its quality. The bunches and berries both resembled the *Isabella* in size and form; skin thin; color, greenish white, with a slight purple tinge in the sun; very little pulp. The flavor was good, better than *Isabella*, we thought at the time, somewhat acid, but pleasant. * * * The appearance of the foliage and the flavor of the grape, give almost unmistakable token of its native origin. Be this, however, as it may, the vine is entirely free from disease, quite hardy, and a good bearer."—*Rural New Yorker*.

As the stock on hand is not large, applications for these vines will be filled in the order they are received.

Plants will be well packed and sent by Express or Railroad to any address.

We have not desired to impress the public with the value of this Grape, by sending it out at a high price, but, willing that it should win its way by its own merits have fixed the

Price, \$1.00 each.

Address

C. W. SEELYE,

ROCHESTER CENTRAL NURSERIES, Rochester, N. Y.

ROCHESTER CENTRAL NURSERIES.

THE Subscriber offers for sale, at the coming Fall trade and Spring of 1861, an unusually fine stock of all the popular varieties of Fruit Trees, consisting of

STANDARD AND DWARF APPLE TREES,
STANDARD AND DWARF PEAR TREES,
STANDARD AND DWARF CHERRY TREES,
PLUMS, PEACHES, APRICOTS, NECTARINES, QUINCES,
&c., &c.

Currants—Including Cherry, Victoria, White Grape, Red Grape.

Raspberries—A fine stock of a number of varieties, but especially Brinckle's Orange, and the Autumnal-bearing Belle de Fontenay.

Gooseberries—Including English and American varieties.

Blackberries, Strawberries, &c.

Hardy Grapes—An unusually fine and extensive collection, including Concord, Crivelen, Diana, Delaware, Elizabeth, Rebecca, Union Village, Ontario, Hartford Prolific, and many other new sorts.

Foreign Grapes—A fine stock of Black Hamburgh, Black Prince, Bowood Muscat, Childs' Superb, Golden Chasselas, Muscat of Alexandria, Muscat of Hamburgh, Rose Chasselas, Victoria Hamburgh, White Sweetwater, Wilmot's, Black Hamburgh, Zinfandel, &c., &c.

Roses—The finest varieties of Hybrid Perpetual and Moss Roses.

Ornamental Trees, Shrubs and Plants, Green-house Plants, &c., &c.

Parties wishing to purchase will find it to their advantage to examine my stock or correspond on the subject. Catalogues will be sent to all applicants.

Address C. W. SEELYE,
Sept.—21 Rochester Central Nurseries, Rochester, N. Y.

50 SMALL FARMS FOR SALE—In Genesee County, Michigan. The subscribers have placed in their hands 50 small farms of from 40 to 150 acres each, which are offered very cheap and on good terms. The land is very productive, and is rich, high-rolling and oak-timbered. Some of it is beach, maple, hickory, oak, ash, basswood, and various kinds of hardwood. For proof of the quality of the land is only to see the crops now growing. Many of the farms are in old settlements, others are a little farther back, but all are accessible by good roads. Improvements are from 10 to 50 acres each, with moderate buildings. Prices are from \$8 to \$25 per acre. The subscribers have also 2,000 acres of hardwood farming land for sale, and some very desirable locations for young men, of 40 and 80 acre lots, at \$5.00 per acre. Office in Eagle Block, Flint, Michigan.
Sept.—11 E. H. McQUIGG & F. F. HYATT.



ALSO, THE BEST DITCHING APPARATUS, Sept.—1* EXTANT.

EVERYONE INTERESTED in Fruit culture, should have the RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1860. Price 25 cents. The five volumes—1856-7-8-9 and '60—for \$1.00, sent prepaid by mail. Address JOSEPH HARRIS, Rochester, N. Y.

CHERRY SEEDS.—We have for sale a fine lot of fresh MAZZARD CHERRY PITS, in sand. Can be forwarded at any time. Address FROST & CO., Sept.—21 Genesee Valley Nurseries, Rochester, N. Y.

A Book for the Household, and for all Readers.

SCIENTIFIC, PRACTICAL AND INTERESTING.

HISTORY, THEORY AND PRACTICE

OF THE

ELECTRIC TELEGRAPH.

By GEORGE B. PRESCOTT, of BOSTON,

Superintendent of Electric Telegraph Lines.

ONE LARGE VOLUME, - - - Price, \$1.75

WITH ONE HUNDRED ILLUSTRATIONS.

THIS is a work admirably suited for household reading, and one which no family should be without. It is a complete encyclopedia of information upon all points connected with the Telegraph. Its author has a complete theoretical knowledge of his subject, and has had an experience of thirteen years as a practical Operator and Superintendent of Telegraph lines. The work, while strictly scientific, is at the same time so clearly and plainly written as to adapt it for popular reading. It contains a thorough summary of the principles of electrical science; a description of all the instruments used in telegraphing in every part of the world, with an engraving of each; an authentic account of the Atlantic Telegraph, and a copy of every message that was sent over it; a view of the various uses to which the Telegraph is applied, including an interesting and curious description of the Electric Fire Alarm System, in operation in various cities; and much information respecting the construction of lines, and the cost of working them.

The work also contains full instruction respecting the proper mode of preparing and sending despatches, and a chapter of entertaining miscellaneous matter respecting telegraphic mistakes, blunders, &c.

This interesting and important book is for sale by all booksellers, or will be sent, post-paid, to any address on receipt of price, by the publishers.

A GOOD BOOK FOR AGENTS.

TICKNOR & FIELD,

Sept.—11 PUBLISHERS, BOSTON.

Pomona Garden and Nursery.

CINNAMINSON, NEW JERSEY.

A LARGE COLLECTION of Fruit and Ornamental Trees Vines and Plants, among which are 50,000 PEACH TREES, branched low—suitable for a Southern climate.

A large and full supply of APPLES, PEARS, PLUMS, CHERRIES, NECTARINES and HARDY GRAPES.

20,000 APPLE SEEDLING STOCKS.

20,000 SILVER MAPLE SEEDLINGS.

20,000 ASPARAGUS ROOTS.

RHUBARB and CRANBERRY PLANTS in large quantities. Especial attention is given to the culture of SMALL FRUITS, and those which prove hardy and most profitable for market are extensively grown.

Having 25 acres planted with Strawberries, Raspberries and Blackberries, and a portion of each, being in full bearing, yielded as follows:

Strawberries.....	\$600.00	per acre.
Raspberries.....	320 00	" "
Blackberries.....	530 00	" "

Plants reasonable. Descriptive Catalogues gratis.

Address WILLIAM PARRY, Cinnaminson, New Jersey.

Sept. 1860.—31.

PLUM TREES! PLUM TREES!!

400,000!

PARTICULAR attention is invited to our Plum Trees, of which we have a full supply, comprising the leading and most desirable varieties.

Plum Trees, 1 year Budded, 3 to 4 feet,	\$20 per 100,	\$190 per 1000.
" 2 " " 4 to 6 " 25 "	225 "	
" 3 " " 6 to 7 " 30 "	260 "	

40,000 PEAR TREES, STANDARD.

One year Budded, 3 to 4 feet,.... \$15 per 100, \$125 per 1,000. Pear Trees must be removed this fall.

Address C. REAGLES & SON, Schenectady, N. Y.

Sept.—21

\$100 PER MONTH—Can be made by selling a *New Political Chart* and Map of the United States, containing Portraits from life, of the candidates of each party. Also, a vast amount of valuable statistical matter. Size, 32x40, and is **BEAUTIFULLY COLORED**. Sample copy sent, post-paid, with my extra terms to Agents, on the receipt of 25 cts. Address, without delay, J. WHITLEY, Jr., Publisher, Davis' Block, Geneva, N. Y.

Sept.—11*

THE HYDROPULT,



AN invention for throwing water by hand-power, patented by W. T. VOSE. It is one of the most valuable inventions of the day.

THE HYDROPULT

will, by the power of one man, throw water at the rate of eight gallons per minute fifty feet high, with great force. It is the best article ever invented for

- EXTINGUISHING A FIRE,
- PROTECTING A ROOF FROM TAKING FIRE,
- WASHING WINDOWS,
- SPRINKLING PLANTS,
- WATERING GARDENS,
- CLEANSING TREES FROM INSECTS,
- WETTING SIDEWALKS,
- SPRINKLING STREETS,
- WASHING CARRIAGES,
- CLEANING CISTERNS,
- EMPTYING WATER FROM SAIL-BOATS,
- WETTING SAILS,
- A SPRAY BATH, etc., etc.

This article should be owned by every householder. It does away with the necessity of a hydrant. It is a light, portable FORCE-PUMP, always ready, easily used, and will come in frequent use by every farmer, merchant, and mechanic in the community. Please call and examine the article at No. 41 Park row, Times Building, or address the

AMERICAN HYDROPULT CO.,

No. 41 Park row, New York.

Agents wanted throughout the United States to sell the Hydropult. Apply as above. Sept.—31

THE HOUSE AND GARDEN

THIS IS THE TITLE of an Ohio Monthly of sixteen octavo pages, published by THOMAS BROWN, Editor and Proprietor of the *Ohio Farmer*.

SUBJECTS.—The Garden, Bee-Keeping, Poultry, Insects injurious to Orchards and Gardens, Domestic Recipes, Stories, Poetry, Gems, &c.

TERMS.—Single copy for one year, 50 cents. 5 copies, 50 cents each, and one to get up of club.

10	45	"	"	"	"	"	"
20	40	"	"	"	"	"	"
30	35	"	"	"	"	"	"
40	30	"	"	"	"	"	"
50	25	"	"	"	"	"	"

Sample Numbers and Prospectuses sent free. Editors noticing *The House and Garden* will receive it regularly. Sept.—11 THO. BROWN, Cleveland, Ohio.

EAST NEW LONDON NURSERIES.

A MOST splendid assortment of FRUIT AND ORNAMENTAL TREES, Shrubs, Plants Grape Vines, Small Fruits, &c., &c. Full descriptive Catalogues free on receipt of stamp to pay postage.

1,500,000 CRANEFRY PLANTS,

Of the celebrated *Cape Cod*, *Bell*, and *Cherry* cultivated varieties, for sale at low prices.

Also—**The Cranberry Culturist**, containing directions for the successful culture of this estimable fruit. Sent to any applicant on receipt of 12 cents in stamps. Address,

W. H. SIARR, East New London Nurseries, New London, Ct.

Sept.—21

JOHN SNELL, Breeder of DURHAM and GALLOWAY GATTLE, LEICESTER, CO'S WOLD and LINCOLN-SHIRE SHEEP, at Brampton, 20 miles west of Toronto, Edmonton Post Office, C. W. Sept.—21*

FRUIT AND ORNAMENTAL TREES FOR THE AUTUMN OF 1860.

ELLWANGER & BARRY

SOLICIT the attention of Planters, Nurserymen, Dealers, and others, to their large and fine stock of FRUIT AND ORNAMENTAL TREES, SHRUBS and PLANTS, which they now offer. The season has been exceedingly favorable, and consequently the stock of all kinds is of the finest description.

FRUIT DEPARTMENT.

STANDARD APPLE TREES, for Orchards, 3 to 4 years from bud and graft.

DWARF APPLE TREES, for Gardens, on Paradise and Doucin Stock, 1, 2 and three years from bud.

PEARS, on Pear stock, 2 to 3 years from bud.

PEARS, on Quince Stock, 1 to 4 years from bud.

CHERRIES, on Mazzard stock, 2 years from bud.

CHERRIES, on Mahaleb stock, 1 and 2 years from bud.

PLUMS, Standard and Dwarf, 1 and 2 years from bud and graft.

PEACHES, Nectarines and Apricots, 1 year from bud.

QUINCES, Orange, Portugal and Rea's Seedling.

FILBERTS, Spanish Chestnuts, Maderia Nuts, (English Walnuts).

HARDY GRAPES, for the Garden and Vineyard, including Delaware, Diana, Concord, Rebecca, and all others of value.

FOREIGN GRAPES, (for Vineries), 1 and 2 years from eyes. Strong, well ripened plants, in pots, of all the best old and new varieties, including Buckland's Sweetwater, Muscat Hamburg, Golden Hamburg, Lady Downs, etc.

STRAWBERRIES—All the best sorts in cultivation, old and new.

BLACKBERRIES—New Rochelle or Lawton, and Dorchester, (the largest stock in existence).

RASPBERRIES—A general collection, including those fine new everbearing sorts, "Belle de Fontenay" and "Merveille de quatre Saisons."

GOOSEBERRIES—The best English sorts, and an immense stock of the American Seedling, that bears most profusely and never mildews.

CURRANTS—White Grape, Cherry, Victoria, Black Naples, and all other valuable new and old sorts.

RHUBARBS—Including Linnæus, Prince Albert, Giant, Victoria, and many others.

NOTE—No pains are spared by the proprietors and their assistants, in the Fruit Department, not only to ensure accuracy, but also to adapt the stock, as regards varieties, to the wants of the various portions of the country as far as practicable.

Ornamental Department.

The stock is immense, all well grown and in perfect health and vigor. Nurserymen, Dealers, Landscape Gardeners, Park and Cemetery Companies, and gentlemen about to improve their grounds, are all invited to examine it.

DECIDUOUS TREES—Elms, Maples, Cypress, Catalpas, Horse Chestnuts, Larch, Laburnums, Lindens, Magnolias, Mountain Ash, Tulip Trees, Salisburia, Poplars, Thorns, etc., etc., of all sizes.

WEeping TREES—Ash, Birch, Elm, Linden, Mountain Ash, Poplar, Thorn, Willow, including the American and Kilmarnock.

EVERGREEN TREES—Arbor Vitæ (American, Siberian and Chinese), Red Cedar, Common Juniper, Balsam Fir, European Silver Fir, Norway Spruce, Red American Spruce, African or Silver Cedar, Japan Cedar (*Cryptomeria*), Pines (Austrian, Scotch, Benthamiana, etc.), Yews (English and Irish), Tree Box, Mahonia, Washingtonia or "Big Tree" of California, and many other California evergreens.

FLOWERING SHRUBS, including all the finest new varieties of Althea, Calycanthus, Flowering Currant, Deutzia, Lonicera, Lilacs, Spiræas, Syringas, Viburnums, Wiegela, etc.

CLIMBING SHRUBS—Such as Honeysuckles, Bignonias, Aristolochia (Pipe Vine), Clematis, Ivy, etc.

ROSES—A great stock, both on their own roots, and budded on the famous Manetti stock. This cultivation is the largest of the kind in the Union, covering 6 to 8 acres of ground annually, and forming a speciality in itself. All the fine new sorts are annually imported, and poor ones discarded as soon as proved. The best only are grown in large numbers.

ÆONIAs—(Herbaceous), a superb collection of upward of 50 varieties in 3 classes.

PHLOXES—A collection of 140 beautiful varieties in three sections.

CHRYSANTHEMUMS—Fifty selected best sorts of the large and Pomponé classes.

CARNATIONS, Picotees and Monthly Carnations, a fine stock.

HOLLYHOCKS—Superb double varieties of all colors.

DAHLIAS—A select assortment of the best varieties. The prize varieties are annually imported.

HARDY BORDER PERENNIAL PLANTS—Over 500 species and varieties. During the past four or five years we have given this class of plants special attention. One of our most competent men has had charge of it, and we have been constantly adding such desirable plants as we could find.

HARDY BULES—Such as Hyacinths, Tulips, Crocus, Crown Imperials, Jonquils, Lilies, etc., imported annually from Holland, ready to send out in September.

SUMMER AND AUTUMN FLOWERING BULBS—Such as Gladioli, Japan Lilies, Amaryllis, Tigridias, Tuberoses, etc., by the dozen, 100 or 1,000.

GREEN-HOUSE AND BEDDING-OUT PLANTS, of all the popular classes, grown extensively and sold cheap.

STOCKS FOR NURSERYMEN.

PEAR SEEDLINGS, 1 year from seed bud.

MAZZARD CHERRY, 1 year, strong.

MAHALEB do. 1 year, strong.

COMEWELL WILLOW, to graft the Weeping sorts on.

All parties interested are solicited to examine the stock and prices.

The following Catalogues are sent gratis, prepaid, to all who inclose one stamp for each:

No. 1—Descriptive Catalogue of Fruits, new edition, 1860.

No. 2—Descriptive Catalogue of Ornamental Trees, new edition, 1860.

No. 3—Green-House and Bedding-out Plants, Spring of 1860.

No. 4—Wholesale or Trade Catalogue, just published.

ELLWANGER & BARRY.

Sept., 1860.—1t. Mount Hope Nurseries, Rochester, N. Y.

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy. REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CURET RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to

JAMES G. DUDLEY, General Western Agent.

April, 1860.

93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, in Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by meat Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast of short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by

JAMES G. DUDLEY,

April, 1860.

93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best Safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent,

April, 1860.

at 93 Main street, Buffalo, N. Y.

STENCIL PLATES—With indelible ink and brush for marking clothing. Also, Business Cards, etc. to order. Samples sent free to any address.—It GEO. B. LUDGON, Norwich, Ct.

Trees! Trees! Trees!

FOR THE AUTUMN OF 1860.

THE subscribers, grateful for past favors, and encouraged with a larger and better assortment than ever, ask the attention of Nurserymen, Dealers and Planters, to their immense stock of well-grown Trees and Plants, consisting of—

Apple Trees—STANDARD AND DWARF—Strong and healthy, with the King of Tompkins Co. and other good sorts in large supply.

Pear Trees—DWARF—A splendid stock, two and three years; fine, strong and healthy trees, of the most approved sorts, on the quince.

Pear Trees—STANDARD—A large and fine assortment of the most desirable kinds.

Cherry Trees—STANDARD AND DWARF—Two and three years; a fine stock, and beautiful trees. Early Richmond by the 100 or 1000.

Peach Trees—One year. PLUM, two years. ORANGE QUINCE.

Apricots and Nectarines.

Currents—Red and White Dutch, Victoria, Cherry, White Grape and other sorts.

Gooseberries—Houghton Seedling, and the best English sorts.

Raspberries—Large quantities of such kinds as Orange, Belle de Fontenay, Franconia, Antwerps, &c.

Blackberries—Lawton largely; Dorchester and Newman's Thornless.

Rhubarb—Myatt's Linnaeus, Cahoon's Mammoth, Downing's Colossal and other varieties.

Grape Vines—Delaware, Diana, Concord, Hartford Prolific, Rebecca, Logan, and many other new and old sorts in large quantities; strong plants, one and two years old, grown in the open air and in large pots under glass. Also,

FOREIGN VARIETIES—For cultivating under glass; of the best sorts, such as Stockwood, Golden Hamburg, Bowwood Muscat, Muscat St. Laurent, Black Hamburg, Zingindal, Royal Muscadine, and 30 others of the best kinds, one and two years old. And for

ORCHARD-HOUSE CULTURE—We have a fine lot of these in extra large pots, for immediate fruiting.

Evergreens—Norway Spruce, Balsam Fir, Scotch, Norway, Austrian and White Pines, Red Cedar, American and Siberian Arbor Vite, Junipers, &c.

Deciduous Trees and Shrubs—Horse Chestnut, Mountain Ash, European and American Linden, Maples, American Chestnut, American and European Ash, Judas Tree, Laburnum, Snowball, Purple Fringe, Altheas, Spireas, &c.

Roses—Climbing and Hybrid Perpetuals; a fine assortment of strong plants.

Hedge Plants—American Arbor Vite, Red Cedar, Privet, Honey Locust, &c.

Stocks for Nurserymen—Angers Quince, Pear, Plum, Mazzard and Mahaleb Cherry, one year, and Apple Stocks, two years.

Packing will be done in the best manner for all parts of the country. Descriptive Catalogues furnished; Wholesale Catalogues in August.

Geneva, Ontario Co., N. Y., Aug. 1, 1860.—2t

T. C. MAXWELL & BROS.

GENEVA NURSERY,

GENEVA, N. Y.

THE Proprietors of this old established Nursery take pleasure in offering for sale the coming Fall a large and fine stock of Fruit and Ornamental Trees, Shrubs, Roses and Green-House Plants.

We invite particular attention to our stock of Standard and Dwarf Pears and Standard Apples, having a very large stock, all grown on a gravelly loam of upland. Orchardists should bear this in mind.

Grape-Vine Department.—Having increased our facilities for propagating, we have erected three very large glass houses, enabling us to grow vines at a much reduced price by the dozen or thousand, mostly of the new and popular sorts—such as *Delaware, Rebecca, Concord, Diana, Hartford Prolific*—all hardy, for out-door culture. Also, Foreign sorts for culture under glass.

We invite all to call and examine our stock before purchasing elsewhere. Trees will be packed in damp moss for transportation.

Address W., T. & E. SMITH,
Aug.—2t Geneva, N. Y.

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Cotswold Sheep, Markham P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price \$5 per pair July—3y

GENESEE VALLEY NURSERIES,

ROCHESTER, N. Y.

FROST & CO., Proprietors of the *Genesee Valley Nurseries*, Rochester, N. Y., offer for sale for the Autumn of 1860 and Spring of 1861, one of the largest stocks of STANDARD AND DWARF FRUIT TREES, SMALL FRUITS, ORNAMENTAL TREES, SHRUBS, ROSES, PLANTS, &c. in the United States. The Grounds at the present time contain over

Three Hundred and Fifty Acres,

devoted entirely to the cultivation of Trees and Plants.

The stock is so extensive in its different departments, that they are enabled to furnish the entire orders of their correspondents of the different kinds, of the best quality, and at the lowest market prices. Trees and Plants are packed in such a manner that they will reach the more distant parts of the United States in perfect condition.

Orders from Nurserymen, Dealers and others, who may wish to purchase in large quantities, are executed with care and dispatch, as well as those who may favor them with the smallest orders.

CATALOGUES.

The following Catalogues contain full particulars of the stock in the different departments, and will be furnished gratis to all applicants who enclose a postage stamp for each:

- No. 1—*Descriptive Catalogue of Fruits.*
- No. 2—*Descriptive Catalogue of Ornamental Trees, Shrubs, &c., for the Autumn of 1860 and Spring of 1861.*
- No. 3—*Catalogue of Dahlias, Verbenas, Green-House and Bedding Plants.*
- No. 4—*Wholesale Catalogue or Trade List, for Nurserymen and Dealers, and others who may wish to buy in large quantities, for Autumn of 1860.*
- No. 5—*Catalogue of Flowering Bulbs.*

Address FROST & CO.,
Aug.—3t Genesee Valley Nurseries, Rochester, N. Y.

WM. PATERSON'S

Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Wharf, New York, N. J., and by the Manufacturer's agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the maker's name, to whom orders sent with cash or satisfactory references, here or in New York, will be promptly executed.

The aforesaid article consists principally of charred bones, dissolved by sulphuric acid, with a large proportion of Peruvian Guano, and other important ingredients.

The largely increased sales for the last six years, with the unsolicited Reports of Agents, &c., attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently decidedly more profitable.

It has been the aim of the Manufacturer to make this Manure what it is avowed to be, and the public may rely assuredly that it will continue to be uniform in quality and profitable to the buyer.

Circulars, with particular instructions for use, will be sent by mail when requested, or on application to his agents.
May—6t WM. PATERSON.

A. BROWER'S

Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather, impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. A. BROWER
May—6t 4 Reade Street, New York.

AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHIEU, Secretary. J. K. CHAPPELL, Agent.
June—1f 64 Exchange Street, Rochester, N. Y.

SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood SUFFOLK Pigs, bred from their importations of 1852, 1853, 1859, and their descendants.
Address JOSIAH STICKNEY or } Boston, Mass.
July—5t ISAAC STICKNEY, }

SHORN-HORNS—Several young Bulls and Heifers, SUFFOLK SWINE—all ages. For sale by T. L. HARRISON,
July—6t* Morley, St. Lawrence Co., N. Y.

40 SUPERIOR SPANISH MERINO BUCKS for sale by
June—6t GEO. CAMPBELL, West Westminster, Vt.

HONEY! HONEY!—\$75 per month Don't fail to send your address to 2t* G. G. BERRY, North Strafford, N. H.

ELECTRIC WEATHER INDICATORS—Manufactured by LEE & CO., Newark, New Jersey. Samples mailed, post-paid, on receipt of 50 cents. Sept.—2t

FAIRBANKS'



STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.

Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular.

FAIRBANKS & CO.,

189 Broadway, New York.

S. W. STEVENS, Traveling Agent. Post Office address, Rochester, N. Y. June—61

JOHN DONNELLAN & Co.,

PROPRIETORS OF THE

Rochester & Lake Avenue Nurseries,

ROCHESTER, N. Y.

OFFER for sale this coming Fall a much larger stock than usual of very fine, thrifty grown stuff, at wholesale and retail, comprising in part as follows:

APPLES—Standard and Dwarf;

PEARS—Standard and Dwarf;

CHERRIES—Standard and Dwarf;

PEACHES, PLUMS, APRICOTS, NECTARINES, &c., &c.
GRAPES—Diana, Concord, Rebecca and Delaware.

CURRENTS—One dozen new varieties; also Cherry and other varieties in large quantities.

GOOSEBERRIES—Imported English varieties; good, strong plants.

RASPBERRIES AND STRAWBERRIES,

ASPARAGUS AND RHUBARB,

LAWTON BLACKBERRY,

HORSE CHESTNUTS—Of all sizes.

EVERGREENS—From one to nine feet, as follows: Balsam, Norway and Black Spruce, American Arbor Vitæ.

ROSES } 20,000 good strong plants of HYBRID PERPETUALS and MOSSES, BOURBONS and TEAS.

PÆONIAS—Donnellan's new seedling, Chinese Pæonias, at reduced prices.

Seed of the above variety, in 50 cents packages, sent free to any part of the United States.

Old varieties by the 100, viz: *Whitige, Dumea and Fragrans.*

A LARGE COLLECTION OF

Herbaceous Plants, Green-House Plants, &c., &c.

The above mentioned stock will be found as represented, and we particularly desire those persons purchasing largely to see our PRICES. Catalogues (Nos. 1 and 2) sent free on receipt of one-cent stamp for each. Persons ordering from a distance may depend on having their stuffs packed with care.

Address J. DONNELLAN & CO.,
Aug.—21 Rochester, N. Y.

STRAWBERRIES! STRAWBERRIES!!

"By their fruits ye shall know them."

WHAT Strawberry shall I plant? Why! the *Wilson's Albany*. Why? Because it is the most productive, the largest, and finest berry out. In fact it is the "fashionable" berry. Originated at the Albany Nursery, where plants can be procured by addressing JOHN WILSON, Albany, N. Y.

Price per 100 plants.....\$1
do 1000 do.....9
Liberal discount to the trade. Aug—21

HICKOK'S PATENT PORTABLE
Keystone Cider & Wine Mill.

THIS admirable machine is now ready for the fruit harvest of 1860. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines.

It has no superior in the market, and is the only mill that will properly grind Grapes. Price \$40. For sale by all respectable dealers.

Address the manufacturer,

W. O. HICKOK,
Eagle Works, Harrisburgh, Pa.

SMALL FRUITS.

WE have an immense stock of SMALL FRUITS, for sale during the Autumn of 1860 and Spring of 1861.

In addition to the more common sorts of Native Grapes, we have over 25,000 plants of such desirable sorts as Delaware, Concord, Diana, Rebecca, Hartford Prolific, Early Northern Muscadine, Logan, and 20 other sorts—strong vines, for outdoor culture. Of Foreign Grapes, we have 35 sorts, one to two years old, for Hot or Cold Vineries, or for fruiting in pots.

An extensive stock of each of the common sorts of Currants, one or two years old, and fine one year old plants of White Grape, Victoria, Cherry, &c.
Fine and well grown Gooseberry plants, of the American and Houghton Seedling, which never mildew, as well as the best English sorts most suitable for this climate.

A great stock of Raspberries, such as Red Antwerp (Madison River), Yellow Antwerp Orange, Franconia, Knecht's Giant, &c., including several thousand of the Autumn-bearing kinds, Belle de Fontenay, Marvel of 4 Seasons, and others.

Strawberries—The most extensive stock of saleable plants and varieties—comprising over 60 sorts—in the Union.
Fine Blackberries—New Rochelle and Dorchester, in large quantities.

Also, Figs, Filberts and Mulberries.

Orders from Nurserymen, Dealers, and others who may wish to buy in large quantities, as well as those who may favor us with the smallest orders, will be executed with care and dispatch.

CATALOGUES containing description, with prices at retail, and No. 4 Catalogue, offering plants in large quantities sent on application containing a postage stamp for each.

FROST & CO.

Proprietors of the Genesee Valley Nurseries,
August, 1859.—31 Rochester, N. Y.

NURSERY TREES FOR SALE.

HAVING been engaged in the Nursery business for the last seven years, our grounds now occupy over 25 acres of the most popular kinds of FRUIT AND ORNAMENTAL TREES. We therefore solicit the attention of Planters, Nurserymen and Dealers in Trees to our large and fine stock on hand for the Fall trade. Our personal attention will be given to proper boxing and packing to suit customers. JAYNE & PLATMAN.
Benton, Yates Co., N. Y., Aug. 1, 1860.—20*

FEMALE AGENTS WANTED.

\$3 A DAY.—Agents Wanted to travel for the MAMMOTH "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts. for a specimen copy, to MARIE LOUISE HANKINS & Co., Publishers, 132 Nassau st., New York City. Aug.—11

500,000 APPLE GRAFTS.

PUT UP in the best manner, and ready for delivery by the 15th of March. Price, \$6 to \$8 per 1,000. 11*
BARNABY, TEAS & SHEPHEARD, Raysville, Ind.

GROVER & BAKER'S

NOISELESS



FAMILY SEWING MACHINE.

THE undersigned, Clergymen of various denominations, having purchased and used in our families "GROVER & BAKER'S CELEBRATED FAMILY SEWING MACHINE," take pleasure in recommending it as an instrument fully combining the essentials of a good machine. Its beautiful simplicity, ease of management, and the strength and elasticity of its stitch, unite to render it a machine unsurpassed by any in the market, and one which we feel confident will give satisfaction to all who may purchase and use it.

- | | |
|--|----------------------|
| Rev. W. P. STRICKLAND, | } New York. |
| Rev. N. VANSANT, | |
| Rev. R. B. YARD, | |
| Rev. E. P. RODGERS, D.D., | } Albany, N. Y. |
| Rev. W. B. SPRAGUE, DD., | |
| Rev. J. N. CAMPBELL, DD., | |
| Rev. CHARLES ANDERSON, | } Auburn, N. Y. |
| Rev. CHARLES HAWLEY, | |
| Rev. DANIEL H. TEMPLE, | |
| Rev. I. M. HOPKINS, | |
| Rev. WILLIAM HOSMER, | |
| Rev. O. H. TIFFANY, D.D., | |
| Rev. C. J. BOWEN, | } Baltimore, Md. |
| Rev. J. N. A. CROSS, | |
| Rev. JOHN M'GON, D.D., | |
| Rev. W. T. D. LEMM, | |
| Rev. R. C. GALLBAITH, Gocanstown, Md. | |
| Rev. T. DAUGHERTY, Waynesboro, Pa. | |
| Rev. THOS. E. LOCKE, Westmoreland Co., Va. | } Charleston, S. C. |
| Rev. W. A. CRO KE, Norfolk, Va. | |
| Rev. J. F. LANNEAN, Salem, Va. | } Schenectady, N. Y. |
| Rev. CHAS. HANKEL, D.D., | |
| Rev. A. A. PORTER, Selma, Ala. | } N. Y. |
| Rev. JOSEPH J. TWISE, Speedwell, S. C. | |
| Rev. B. B. ROSS, Mobile, Ala. | } Schenectady, N. Y. |
| Rev. J. L. MICHAUX, Enfield, N. C. | |
| Rev. A. C. HARRIS, Henderson, N. C. | } N. Y. |
| Rev. HENRY A. RILEY, Montrose, Pa. | |
| Prof. W. D. WILSON, D.D., Geneva, N. Y. | } Schenectady, N. Y. |
| Rev. ELBERT SLINGERLAND, Scotia, N. Y. | |
| Prof. JOHN FOSTER, | } Schenectady, N. Y. |
| Rev. FRAN. IS G. GRATZ, | |
| Rev. J. TURNBULL BACKUS, D.D., | } N. Y. |
| Rev. P. C. PRUGH, Xenia, O. | |
| Rev. B. W. CHIDLAW, A.M., Cincinnati, O. | } Gambier, O. |
| Rev. E. GRAND GIRARD, Ripley, O. | |
| Rev. A. BLAKE, | } Gambier, O. |
| Rev. E. C. BENSON, A.M., | |
| Rev. J. J. McLEHENNY, D.D., | } Worcester, Mass. |
| Rev. F. CHESTER, Irondon, O. | |
| Rev. E. F. HASTY, Cambridge City, Ind. | } Worcester, Mass. |
| Rev. J. C. ARMSTRONG, Sabine, Mich. | |
| Rev. ARTHUR WAZEY, Galena, Ill. | } Worcester, Mass. |
| Rev. ENSTEIN MORBOUGH, Cambridge City, Ind. | |
| Rev. RICHARD WHITE, Milton, Ind. | } Worcester, Mass. |
| Rev. CALVIN VALE, Martinsburgh, N. Y. | |
| Rev. JOSEPH ELDRIDGE, Norfolk, Conn. | } Worcester, Mass. |
| Rev. JOHN JENNINGS, | |
| Rev. H. L. WAYLAND, | } Worcester, Mass. |
| Rev. WILLIAM PHIPPS, | |
| Rev. OSMOND C BAKER, Bishop of M. E. Church, | } Concord, N.H. |
| Rev. THOS. RATHAY, | |
| Rev. G. N. JUDD, Montgomery, N. Y. | } Concord, N.H. |
| Rev. A. M. STOWE, Canandaigua, N. Y. | |
| Rev. WILLIAM LONG, Clifftown, Mich. | } Concord, N.H. |
| Rev. WILLIAM LONG, Clifftown, Mich. | |

Offices of Exhibition and Sale:—495 Broadway, New York. 13 Summer Street, Boston. 730 Chestnut Street, Philadelphia. 181 Baltimore Street, Baltimore. 55 West Fourth Street, Cincinnati. 124 North Fourth Street, St. Louis. 115 Lake Street, Chicago. 13 Newhall House, Milwaukee. 5 Merrill Block, Detroit. 171 Superior Street, Cleveland.

SEND FOR A CIRCULAR.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

"A STITCH IN TIME SAVES NINE."

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for lumping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary maulage, being vastly more adhesive.

"USEFUL IN EVERY HOUSE."

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address HENRY C. SPALDING & CO.,
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,
SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,
SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,
SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,
SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,
SOLD BY GROCERS.

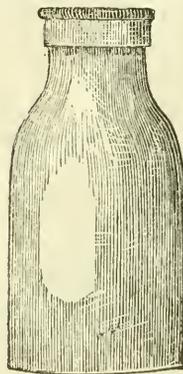
SPALDING'S PREPARED GLUE,
SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by

HENRY C. SPALDING & CO.,
48 Cedar Street, New York.

Address Post-Office, Box No. 3,600.

Dec., 1852.—17



FRESH FRUITS

ALL THE YEAR!

THE YEOMANS'

FRUIT BOTTLE!

FOR Utility, Convenience, Economy and Safety is unequalled for preserving Fruits in a fresh state, in any climate, an indefinite time.

"Having used these Bottles we find them exceedingly convenient, and just the thing needed."—J. J. THOMAS, in *Register of Rural Affairs*.

For Descriptive and Price Circulars, address the Proprietor at Walworth, Wayne Co., N. Y., May—11 T. G. YEOMANS.

WOOD CUTS FOR SALE.

We will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer and Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address to **JOSEPH HARRIS, ROCHESTER, N. Y.**

CONTENTS OF THIS NUMBER.

A Day among the Dairies.....	265
High price of Meat in England. Southdowns vs. Leicesters.....	266
Cost of Plowing.....	266
Crops which Enrich the Soil.....	267
Jonas Webb's Southdowns.....	269
Nitrates in Phosphatic Guanos. The Potato Rot.....	269
Yield of Milk from Ayrshire Cows.....	270
The Cattle Disease caused by Immature Food.....	270
Skinless Barley.....	270
Spirit of the Agricultural Press.....	271
Water on Stock farms. Milk becoming thick while sweet	271
To remove Horses from a Building on Fire.....	271
Cashmere Goats in Kentucky. Scours in Calves.....	271
To remove Warts. To keep Potatoes in the Cellar.....	271
Slobbering in Horses. Onions for Cattle.....	271
Sand for Horses' Beds. Inflamed Udder.....	271
Black Hogs not subject to Mange.....	271
To keep Rats from Grain Stacks.....	271
Sheep for Wool and Mutton.....	271
Design for a complete Farm-house and Stable.....	272
Profits of Potatoes. More Good Sheep. Precocious Heifers.	273
Will Wheat culture Pay?.....	273
Dairies and Dairying. How to become a good Horseman.....	274
Keeping Poultry on a large scale.....	275
Notes for the Month—by S. W. Maine Items.....	276
How shall we Stock ground with Grass?.....	277
Notes from Canada. Good Prospects for the Farmer.....	277
Bee-hiving—Management, etc.....	278
Horace Greeley on Agricultural Papers.....	278

HORTICULTURAL DEPARTMENT.

Wilson's Albany Strawberry.....	279
The Neglect of Fruit Trees.....	280
Cherries in California. The Spring Rose of Shanghai.....	281
Raspberry Jam Tree. Fruit-growing in Northern Canada.....	281
Wines of Italy. Canadian Apples in England.....	282
Rare Occurrence. Tomatoes from Cuttings. Dahlias. Peaches	283

LADIES' DEPARTMENT.

Original Domestic Receipts.....	283
---------------------------------	-----

EDITOR'S TABLE.

Genesee Farmer for 1861.....	284
Notes on the Weather.....	284
Items, Notices, &c.....	285
Inquiries and Answers.....	286
Books, Pamphlets, &c. Received.....	287
List of Agricultural Fairs—Continued.....	286

REVIEW OF THE MARKETS.

Market Reports.....	288, 289
---------------------	----------

ILLUSTRATIONS.

White Lupine. Spurry.....	267
Medicago lupulina. Bird's-Foot Trefoil. Lucerne.....	268
Vetch.....	269
Complete Farmhouse and Stable, by G. E. Harney, Lyndu, Mass.	272

THE GENESEE FARMER.

FOR 1861.

In order that our friends may see that we are determined to do all that we can to recompense them for their generous efforts to extend the circulation of the *Genesee Farmer*, we announce this early our List of Cash Prizes to be awarded to those who send us the largest clubs of subscribers on or before the fifteenth day of January, 1861. Last year, our highest Prize was \$25; this year, encouraged by our increased circulation, we head the list with a Prize of Fifty Dollars in Cash! and in order that our friends may have time to do all that they can to extend our circulation, and to give those residing in places where we now have but few subscribers an equal chance with those where the *Farmer* is better known, we have concluded to send the *Genesee Farmer* for the three remaining months of this year and the entire volume for 1861, for Fifty Cents! This will give all our friends who intend to compete for these Premiums an opportunity to commence at once.

January Cash Premiums.

1. FIFTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers for the next volume of the *Genesee Farmer* before the 15th day of January, 1861.
2. THIRTY DOLLARS in Cash to the person who shall send the second highest number, as above.
3. TWENTY DOLLARS for the third list.
4. FIFTEEN DOLLARS for the fourth.
5. TEN DOLLARS for the fifth.
6. NINE DOLLARS for the sixth.
7. EIGHT DOLLARS for the seventh.
8. SEVEN DOLLARS for the eighth.
9. SIX DOLLARS for the ninth.
10. FIVE DOLLARS for the tenth.
11. FOUR DOLLARS for the eleventh.
12. THREE DOLLARS for the twelfth.
13. TWO DOLLARS for the thirteenth.
14. ONE DOLLAR for the fourteenth.

In competing for the above Premiums, it must be borne in mind that no subscription is taken for less than a year. Those wishing the paper for the last three months of this year, must send fifty cents for each subscriber, and the subscriber will then get the paper for fifteen months, viz: the October, November and December numbers of this year, and the entire volume for 1861. Those who wish the paper to commence with the January number for 1861, can have it in clubs, as hitherto, at 37½ cents each per annum.

SPECIFIC PREMIUMS.

1. To every person who sends us EIGHT subscribers, (at 50 cents each, for the fifteen months—October, 1860, to December, 1861, inclusive—or at 37½ cents for the year 1861) we will send, postage paid, a copy of the *Rural Annual* for 1860, or, as soon as published, for 1861.
2. To every person who sends us SIXTEEN subscribers, (as above) we will send one extra copy of the *Genesee Farmer*, and one copy of the *Rural Annual* for 1860, or 1861.
3. To every person sending us TWENTY-FOUR subscribers, (as above) we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*. Those who send more than twenty-four will probably take one of the Cash Prizes. If not, Specific Premiums will be sent in the same ratio as the above.

Clubs are not required to be at one post-office, or sent to one address. We send the papers wherever the members of the club desire. It is not necessary that the club should be sent in all at one time. Names can be added at any time, and all that are sent in before the fifteenth of January will be counted in. Send on the names with the money as fast as they are obtained.

Money may be mailed at our risk, and you need not register the letters.

Address **JOSEPH HARRIS,**
PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,
September 1, 1860. ROCHESTER, N. Y.

THE
Gene See Farmer
AND
PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., OCTOBER, 1860.

No. 10.

DAIRYING ON GRAIN FARMS.

A RECENT visit to the dairying districts of this State, has satisfied us that our wheat-growing farmers might keep more cows on their farms to advantage. While there are undoubtedly districts of country where the dairy business may be carried on under the most favorable circumstances, yet there is nothing in the business itself which need prevent most of our wheat-growing farmers from devoting a portion of their land to dairying purposes. A "mixed husbandry" is usually the safest and most profitable. No farm can long be devoted to raising grain alone, and retain a high degree of productiveness. New land has been heavily manured by the accumulated deposit of leaves, etc., from the primitive forests. For a few years, such land will yield crops without any additional manure. After a time, this natural manure becomes exhausted, and the farmer must then furnish a new supply himself, or be content to raise very poor crops. We have no fears in regard to "prospective sterility." We hold that it was reasonable and just in the early settlers to avail themselves of this manure, which nature had deposited on their land. They have not exhausted the soil—they have merely used up the manure which they found spread out on their newly-cleared farms. But, now that this natural manure is gone, we must adopt a different system of cultivation. We must sow less breadth of grain crops, and devote more land to raising those crops which impoverish the soil but little, and which, when eaten by cattle, sheep or pigs, furnish rich manure. In a word, *we must keep more stock.*

We are well aware that the farmers of the older states have to compete, under disadvantageous circumstances, with the farmers of the fertile West, in feeding stock. Other things being equal, the farmers of the West can raise meat and wool with more profit than the Eastern farmers, if the Atlantic cities are the ultimate market. It costs far less to

send to a distant market five lbs. of pork or beef, made from a bushel of corn, than to send the sixty lbs. of grain. The farmers of Illinois can better afford to feed corn to hogs or cattle, than the farmers of New York or New England, when both have to sell in the same market. The freight on produce from the West is a kind of protective duty in favor of those residing nearer market—and this duty is far higher on a dollar's worth of grain than on a dollar's worth of pork or beef. This will always be so. The farmers of the West, so long as the Eastern cities are the market, can always feed out their corn on the farm with greater *comparative profit* than the farmers of the Middle and Eastern States.

It is this which so greatly enhances the difficulty of making all the manure we want on the farm. We have this advantage over the Western farmers: the manure made by fattening stock is worth more here than on the rich land of the West. We have, too, for the time being, better barns and can feed out our fodder more economically; and there are those who contend that these advantages are sufficient to counterbalance the drawbacks we have named. Be this as it may, it is certain that we must look for competition from Western farmers in supplying meat for the Eastern markets.

We do not wish to remain content to raise an average of only fifteen bushels of wheat per acre. With our fine, sunny climate for maturing the grain, we ought to average thirty bushels per acre—and we shall do it. *But we must have manure.*

There is an increasing demand for *cheese*, not only for home consumption, but for export. We see no reason why the manufacture of this staple article should be confined to particular districts. We can make just as good cheese here, in Western New York, as in Herkimer or Lewis county. We hear it said, "Our land is too valuable." Not at all. We saw a farm of three hundred acres in Herkimer county, that had recently been sold to a dairy farmer

for \$65 per acre, and we know farms here that could be bought for less money, one acre of which is worth any two acres on this farm. This speaks well for the profits of cheese-making, and for the skill and intelligence of Herkimer farmers.

We do not advocate the exclusive devotion of the farm to the dairy, in this wheat-growing section. We should keep a dairy that we may make manure, and thus enrich our land for the production of wheat. This is what is done on many of the best English farms. We were once on such a farm in Shropshire. It contained 268 acres. There were raised each year about forty acres of wheat, 40 of barley and oats, and 40 of turnips. Over 200 sheep were kept, 12 head of young cattle, and a dairy of 40 cows. Besides this, 10 or 12 head of cattle were fattened every winter. This is a heavy stock for such a farm. The land was no better than the average of Western New York. It was highly productive, and had been made so simply by judicious cultivation. It was a rented farm, and on asking the occupant, as we walked along the road, how much money he made from his cows last year, he replied, "Times are very hard." He then walked along into the centre of a field, where there was no chance of any one overhearing him, and then remarked, "I made fifteen pounds (\$75) from each cow, besides the pigs." The reason for his cautious manner, was from fear that his landlord might hear how much money he was making, and raise the rent.

Here we have an income of \$3,000 a year from a dairy on a grain farm, and where it scarcely interfered with the cultivation of wheat, barley, etc. Such results can not be attained at once, but judicious cultivation, good feeding, the use of oilcake or cotton-seed cake, and careful saving and application of manures, will enable us to approximate closely to it in a few years.

We throw out these thoughts for the purpose of calling the attention of our readers to the subject, and hope some of our experienced correspondents will favor us with their views.

CHEESE FOR ENGLAND.—It is said that the cheese made on the Western Reserve, Ohio, has this season, for the first time, been purchased principally by dealers in New York for the purpose of shipping it to England. The price of Cheshire cheese in the London market ranges, according to the last *Mark Lane Express*, from 16 to 19½ cents per lb., Double Gloucester, new, from 14½ to 15½ cents per lb.

AGRICULTURAL EXHIBITIONS.

NEW JERSEY STATE FAIR.—The first Fair of the season was that of the New Jersey State Agricultural Society, which was held at Elizabeth, Sept. 4—7. The attendance was larger than at any of the five previous exhibitions of this Society. There were no cattle allowed to enter from fear of the disease. Horses were the main attraction of the exhibition. There were some good sheep and pigs. J. C. TAYLOR exhibited a few of his renowned South Downs. There was but one collection of flowers exhibited, and that consisted principally of asters. ELLWANGER & BARRY, of this city, showed a collection of 117 varieties of pears, and took the first prize.

THE ILLINOIS STATE FAIR was held at Jacksonville Sept. 10—15, and we learn was decidedly the best ever held in the State—in fact, our informant states "the show of cattle was the finest ever made in the United States." Full particulars have not yet reached us, and we must defer any further notice till next month.

THE SPRINGFIELD HORSE SHOW.—The fourth biennial "National Horse Show" was held at Springfield, Mass., Sept. 4—7. There were from ten to fifteen thousand persons present for two or three days. There were 433 for premiums, and 184 for exhibition or sale, making the whole number of horses on the ground 617. SANFORD HOWARD, of the Boston *Cultivator*, says, "Among them were many good ones, but comparing this with the first 'National' exhibition here—which, by the way, is claimed by the United States Agricultural Society as their first exhibition—our impression is that the average standard of excellence would be in favor of the first show"—which was held in 1853.

The same writer states that under the head of thorough-breds there were only nine horses shown. It was stated in the programme, that in awarding the premiums in this class, speed would be considered, but it was not stated whether the horses were to trot, pace, or run. They were "put through, however, at the latter gait—Comet, a four-year old chestnut horse, owned by ALEXANDER BATHGATE of Fordham, N.Y., ran the mile in 2.06½, and Narcissus, a three-year old filly owned by HENRY BOOTH of West Farms, N.Y. in 2.05, both beating their competitors, and the former receiving the prize of \$20 offered for stallions, and the latter that of \$10 offered for mares.

Under the head of stallions for general use, there were several classes, according to age. In the class

of "eight years and older," there was a large and interesting competition. The first prize of \$200 was awarded to "Jupiter," owned by D. B. RICU, of New York. He was by Long Island Black Hawk; "weighs nearly 1200 lbs.; has a handsome body, large, coarse head, and rather gouty legs." The second premium of \$100 was awarded to "Pathfinder," bred and owned by LINSLEY Brothers, of West Meriden, Ct.; and the third, of \$50, to "Maine Messenger," owned by JOHN WYMAN, of Bangor, Me.

In the class of stallions "four years old and under five, there was a spirited competition. The first prize was awarded to "Billy," by "Ethan Allen," and owned by DAN PRIFER, of New York; the second to "Seth Sprague," by "Ethan Allen," owned by GEORGE WESSON, of Worcester, Mass.; and the third to "Naugatuck," owned by J. H. BENNETT, of New Boston, Ct.; and the fourth to "Imperial Black Hawk," owned by C. M. LEWIS, of New Britain, Ct. "Billy" trotted a mile on the half-mile track in 2.59. "Hickory Jack," by "Ethan Allen," owned by A. CARPENTER, of Providence, R. I., did quite as well.

In the class of three-year old stallions, the first prize was awarded to JOSEPH HOOKER, of Brooklyn, N. Y.; the second to Mr. HALE, of Meriden, Ct.; the third to R. S. DENNY, of Clappville, Mass., and the fourth to Jos. BURNETT, of Southboro', Mass.

In the class of "Breeding Mares," Count de BEERSKI, of Virginia, took the first prize of \$100 for an English "thorough-bred;" C. W. BATHGATE the second, and JOHN BROOKS, of Princeton, Mass., the third.

There was a class of saddle horses, in which Prof. W. S. CLARK, of Amherst, took the first prize for "Othello," said to have been of the Bulrush Morgan family.

A novel feature was the class of "Walking Horses." The gait of most of the horses was such that it was difficult to say whether it was a walk or an amble.

LEWIS B. BROWN, of New York, exhibited a four-hand team of *old horses*, one of which was 35 years old, and the four aggregating a total age of 107 years! They did a mile in from 3.15 to 3.30, 'four persons in the wagon, without showing a sign of fatigue.'

A team of four horses, owned by SIMEON LELAND, of the Metropolitan Hotel, New York, received the first prize of \$100 for "pleasure driving." They did not compare in style, beauty or action with Mr. Brown's "ancient and honorables," which were not offered for premium.

A "string-truck team" of three horses, owned by S. C. HERRING, of New York, attracted much attention for their thorough discipline and good appearance generally. They weighed from 1,400 to 1,500 lbs. each.

COTTON-SEED CAKE.

IN the *Genessee Farmer* for May, we alluded to the great value of cotton-seed cake as a food for stock, and especially in reference to the high percentage of nitrogen and phosphate it contained, and consequently of the high value of the manure obtained from animals eating this cake. It was then estimated that the manure from a ton of decorticated or husked cotton-seed cake was worth \$27.86, while that from linseed oil cake was worth \$19.72, and from Indian corn only \$6.65.

Dr. VOELCKER, chemist to the Royal Agricultural Society of England, as the result of several analyses, sums up the value of cotton-seed cake, as compared with linseed cake, as follows:

"1st. The proportion of oil in all the specimens is higher than in the best linseed cake, in which it is rarely more than 12 per cent., and 10 per cent. may be taken as an average. As a supplier of food, cotton cake is, therefore, superior to linseed cake. 2d. The amount of oil in the several specimens differs to the extent of $5\frac{1}{2}$ per cent.; say, 13.50 to 19.19. 3d. Decorticated cake contains a very high and much larger percentage of flesh-forming matters than linseed cake, and is therefore proper to give to young stock and milch cows. The dung, also, is very valuable. 4th. In comparison with linseed, there is much less mucilage and other respiratory matter in cotton cake. This is compensated by the larger amount of oil. 5th. The proportion of indigestible woody fiber in decorticated cotton cake is very small, and not larger than in the best linseed cake. 6th, and lastly. It may be observed that the ash of cotton cake is rich in bony materials, and amounts to about the same quantity as is contained in other oily cakes."

Cotton-seed cake can be obtained at cheaper rates than the linseed cake, and we recommend our readers, with considerable confidence, to give it a trial.

LARGE CROP OF RYE.—Mr. ORVILLE BAILEY, of Livonia, Livingston Co., N. Y., informs us that he raised this season from one acre and twenty-two-hundredths, 78 bushels and 47 lbs. of rye, or a little over sixty-four and a half bushels per acre. It was grown on land that had been a meadow for twenty years. Three years ago it was broken up and planted with corn. The next year it was prepared for a crop of tobacco, but was not planted. The rye was sown early in August, and was eaten off by sheep during the winter. In fact, the intention had been to raise the rye simply for winter pasture. The land has never been manured.

SPIRIT OF THE AGRICULTURAL PRESS.

LATE SOWN WHEAT.—A Kentucky farmer writes the *Louisville Courier* that he thinks farmers in his section sow their wheat too early, as early sown wheat is more liable to injury from the Hessian fly. This is true, but with us late sown wheat is more liable to injury from the midge—and so we have to steer between these two evils as much as possible. He states that for the last five years he has sown his wheat after the 15th of October—last year from the 18th to the 28th—and in all these years he has never missed a good crop. While his neighbors were “complaining of fly, freezing out and rust, he has escaped all, producing from twenty to thirty-five bushels of good bright wheat to the acre.” He sows with a drill.

BOILED CORN FOR HOGS AND STOCK.—WM. VAN LOOM, writing to the *Prairie Farmer*, says that he has practiced feeding boiled corn to his stock and hogs, and is “satisfied that he saves one-half his grain, and gains as much more in time;” that one bushel of corn on the cob, boiled, will produce as much pork as two fed raw, and in one-half the time. In one experiment, he fed three bushels of boiled corn, per day, to 27 hogs, for ten days. The average gain was two pounds per day. He then fed the same lot of hogs on three bushels of raw corn per day for twenty days; they gained only a trifle over one pound per day. Such experiments, continued for so short a time, are not reliable.

BREAKING PRAIRIE LAND.—M. L. DUNLAP, in the *Illinois Farmer*, advocates the use of the Michigan double plow, for breaking up prairie land. He has tried it, and with good results. The land can be plowed, with this plow, at any time when the frost is out, as late as November in the fall, or as early as March in the spring. He thinks the prairie should not be plowed more than three or four inches deep at most.

BUCKWHEAT STRAW.—J. A. HUBBARD, writing to the *N. E. Farmer* from a locality in Maine where this grain is extensively grown, says that buckwheat straw “is injurious to young pigs, and if they lay in it, it will set them crazy and they will finally die. It is hurtful to hogs and young stock to run through it when green, making their head and ears sore and itch very much.” Is this so?

SORGHUM SUGAR.—A correspondent of the *Ohio Cultivator* has had the best success in making sugar from the sorghum by dividing the cane—taking the lower joints for sugar and the balance for molasses.

SALT FOR FENCE POSTS.—A correspondent of the *N. H. Journal of Agriculture* set some white oak posts, about twelve inches square, thirty years ago, and on examining them the other day he found them all sound. After setting, he bored into each post, about three inches above the ground, with a two-inch augur, at an angle of about 45°, and filled the hole with salt and plugged it up. It took about half a pint of salt to each post. The plugs are yet in, and the posts look as sound as when set. He tried none without salt.

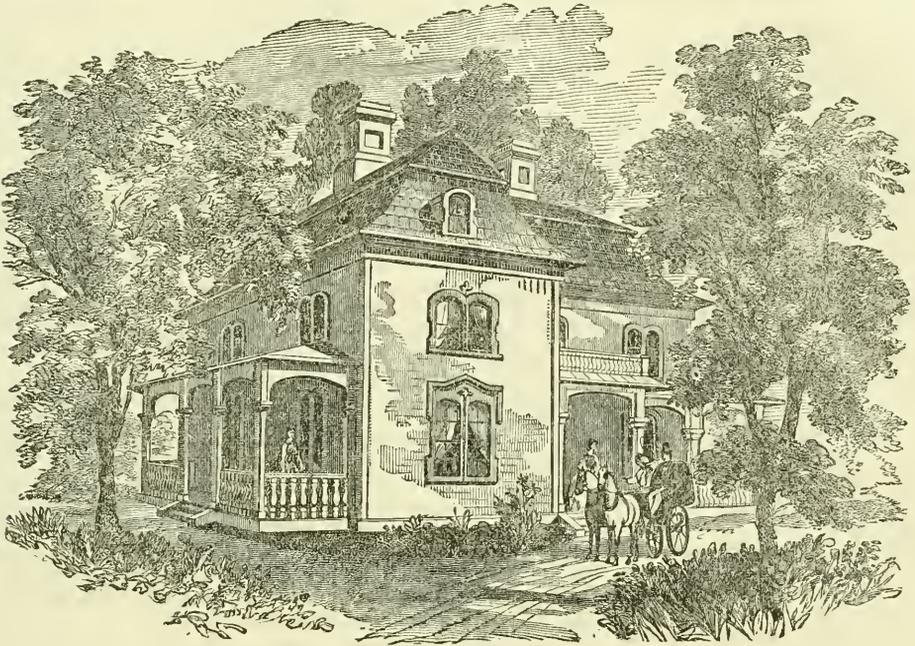
THE TEA PLANT.—The *N. E. Farmer* says the progress of acclimatizing the tea plant, so far as heard from, is favorable, and there is reason to believe that it can be grown in the open air south of the northern line of North Carolina and Tennessee. Eighteen thousand plants have been sent into the Southern region, and eight thousand more have been distributed to persons in the Northern States owning green-houses, as objects of curiosity. There are some grown, for the latter purpose, in this city.

LOOK TO THE CHESTS OF YOUR ANIMALS.—A late writer says that a wide, deep chest in all animals, is an indication of robust constitution, and is, no doubt, the point of shape to which breeders should look when selecting either males or females. It is not enough that a bull or cow should show a wide, full breast in front, but the width should extend back along the brisket, and show itself just under and between the elbows. Fullness through the region of the heart is indispensable in either sex.

HOW THE SHAKERS UNLOAD HAY.—MR. LEVI BARTLETT says, in the *Country Gentleman*, that the Shakers at Canterbury, N. H., have constructed a barn so that the load is drawn to the upper story, and the hay is “pitched down” instead of up. Formerly they used a grappling hook and horse power, which at four “grabs” would carry a large load to the top of the building; now they have no use for it.

THE CATTLE DISEASE.—The *Maine Farmer* says there is now every reason to believe that the wise and energetic precautions taken by the authorities of Massachusetts, have operated as an effectual check upon the progress of the terrible disease which at one time threatened contagion and death to the cattle herds of New England.

FEEDING TURNIPS TO COWS.—“If this is done,” says the *American Farmer*, “morning and evening, immediately after milking, no taste of turnips will be discernible in the butter.” We have heard this before, and would like to know if it is a fact.



DESIGN FOR A SUBURBAN VILLA.

DESIGN FOR A SUBURBAN VILLA.

THERE seems to be a demand at present for a class of houses of moderate size and accommodation, suitable for the small lots in the immediate neighborhood of the city, and which can be built for a small outlay—say from \$3,000 to \$5,000. In our present design we have given an example of this class of dwelling, and as its situation demands, have given it more architectural finish than any of our former designs.

by two mullioned windows, one of which reaches to the floor and opens upon the veranda, No. 5. The library, No. 4, is 13 feet by 15, and opens upon the veranda in the same manner as the parlor. No. 6, the dining hall, measures 15 feet by 17½, and contains a large closet, No. 9, fitted up with a dumb waiter rising from the kitchen below. No. 7, the back entry, measures 6 feet by 16, contains stairs to chambers and basement floors, and opens upon a gallery, No. 10, leading to the yard; under the gallery is the yard entrance to the basement.

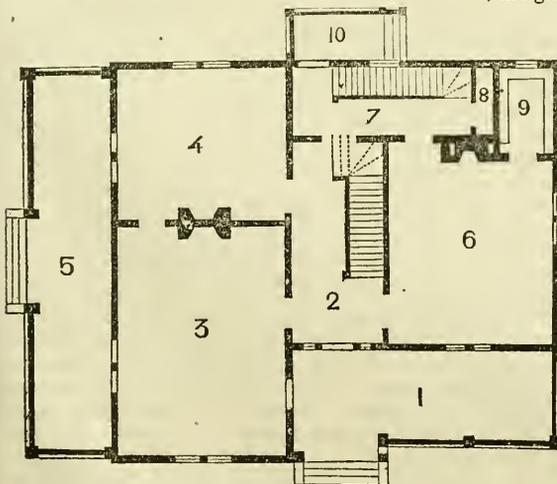
The second floor contains four good sized chambers with bathing-rooms, dressing-rooms and closets. In the attic, which should be finished throughout, will be three large bedrooms, besides a storage for trunks, etc. The first story is 11 feet high in clear, and the second 9½ feet.

CONSTRUCTION.—This dwelling is to be built of wood, and should be finished in a thorough, substantial manner, inside and out. It may be covered in the horizontal manner with matched sheathing, or with clapboards—either being appropriate to this style of building, though the former, which is also rather more expensive, gives the appearance of a greater degree of finish than the latter.

The French roof may be covered with semi-circular patterned shingles. There should be a cornice run through all the principal rooms. The architraves of the windows and doors, and the balusters,

post and rail of the front staircase, should be of simple but heavy designs. The walls are to be prepared for papering.

COST.—Such a building as the above could be built complete for about \$4,000. G. E. HARNEY.



PLAN OF PRINCIPAL FLOOR.

No. 1 is the front entrance portico, opening into the hall, No. 2, 8 feet wide, and containing front stairs to the chambers. The first door on the left opens into the parlor, No. 3, 15 feet by 20, lighted

WHEAT FROM THE SOUTH.

EDS. GEN. FARMER:—Is it not a rule of logic, as well as a principle of common sense, "that we should consider in what sense it is likely an author expected or intended to convey his thoughts to those to whom he addressed himself?" and a judicious writer always expects each word to be understood, as nearly as it will allow, in that sense which will maintain, not defeat, the truth of the proposition affirmed. Consequently, any construction given his language that will either so enlarge or restrict its meaning as to render it inconsistent with the proposition affirmed, is forced and illogical. Again, if a proposition is to be proved "supremely absurd," it should be criticised, at least, as written, not, as in this case, transpose the sentences, so as to make a quotation, cited in support of the proposition, a distinct proposition of itself, and then assert that the *propositions* are "supremely absurd." The mere fact that a transposition was resorted to, is evidence that it was done because it gave strength to the position of the writer; otherwise, he would not have resorted to any such means to prove the proposition "supremely absurd."

The second proposition affirmed by us was this: "that plants, after vegetation has commenced, require also a *certain* amount or *quantum* of heat, not any certain duration or continuation thereof. It is the amount, not the duration, that is essential to *mature* plants." In support of this proposition, we quoted from DE CANDOLLE the sentence to which your correspondent, J. B. C., so much objects. Your correspondent then remarks, "Now if these propositions are unqualifiedly true, then the greater the heat the more rapid the growth; and all we have to do to increase the growth, is to increase the heat *ad infinitum*, and that one day at 212° (boiling point) would cause vegetation to grow as much as two days at 106°, and so on, at a higher or lower degree of temperature, which is, to say the least, supremely absurd." We admit that if this is the *certain amount* of heat required for vegetation, or if it is "*essential to mature plants*," then the terms used were unqualified, and the construction of J. B. C. fair and legitimate. But, on the other hand, if the degree of heat indicated in his construction of the proposition is greater than the "certain amount required for vegetation," or if greater than the amount or quantum "*essential to mature plants*," and would destroy, not mature them, then his construction of the language used is forced and unnatural—the offspring of his own brain, and which he has the undoubted right to characterize as "supremely absurd," in which opinion it would be *unkind* in us to say we concurred. In short, our proposition is, that after vegetation has commenced, a certain amount of heat is "*essential to mature plants*." Now, when your correspondent affirms that this means that the heat may be increased to the boiling point, he affirms that which would *destroy*, not *mature* plants,—a construction which is totally inconsistent with the proposition stated, and is therefore conclusive of its own fallacy.

We might stop here, but we would like to meet the assertion that our propositions are mere *theories*. This, we maintain, is no objection to them, if they are true. But we deny that they are *mere theories*. We maintained that all plants were *thermometers*,

with their respective zero points or degrees of vegetation. This proposition is supported by the very highest authority. M. CU. MARTINS says that "Each species of the vegetable kingdom is a kind of *thermometer*, which has its own zero." DE CANDOLLE says the above quotation is true, and adds: "When the temperature is below the zero point, it is useless to plants on account of the congelation of their juices." Our own observation proves the same fact. Take any kind of plants from New York and bring them here, and plant them with the same kind brought from Georgia, and the result will be that the plants from New York will vegetate first, those grown here next, and lastly, those from Georgia; the difference in time of vegetation being from ten to fifteen days. Now, we insist that this is conclusive of the position, that the zero point or vegetation degree is earlier reached in plants grown north than it is in plants grown at the south. Consequently, when removed to a latitude where the necessary amount of heat is realized earlier in the season than in their native homes, they will vegetate that much sooner, and before the plants of that latitude, or those brought from a still warmer climate. It is true, that in the course of time these plants will acquire the same vegetation degree, but it will require time to change the original zero point or vegetation degree so as to make them harmonize.

The next proposition was this: Admitting the *mean temperature* to be the same north and south, still, as the vegetation degree would be reached earlier by the removal south, plants would mature that much sooner there than they would at the north, because vegetation would commence that much earlier in the season; but if, in addition to this, we increase the *mean temperature* south, that will of itself hasten the maturity of plants in proportion to the increase of the *mean temperature*. In support of this proposition we quoted the following remarks from an essay read by DE CANDOLLE before the Academy of Science at Paris: "It is plain that a great heat during a short period must produce the same effect on plants with a less degree of heat during a longer term." This is the proposition so much objected to by J. B. C. It is true, the author does not qualify his language, and for a very plain reason,—he knew that those who were in search of truth would confine the proposition to its appropriate subject matter, the amount of heat essential to *mature*, not to *destroy* plants. If this proposition is in fact erroneous, it was *highly commendable* in J. B. C. to advise others of the error, and we hope he will forward a copy of his article to the Academy of Science. But is it erroneous? BOUSSINGAULT says: "There is an obvious relation between a time a crop is upon the ground and the *mean temperature* of the place or season where it grows." In short, the table given below, compiled from his work, shows that a less *mean temperature* required more days to mature plants than does a higher mean temperature to accomplish the same purpose. These experiments were made in places where both *zero point* and *mean temperature* were different, and they establish beyond controversy, that when the zero point, in one instance, was reached on the 15th day of February, and in the other, not till the 1st of March, the *mean temperature* being the same in both cases, the same kind

of wheat ripened 13 days sooner in the first case than in the second. Again, the zero point in both instances being the first of March, but the mean temperature was some 10° higher in one place than at the other, and the result was a gain of between 10 and 15 days in the maturity of the wheat in favor of the higher mean temperature. (See table.)

TABLE.

Zero Point.	M. Temperature.	Days to Mature.	Remarks.	Days Gained.
WHEAT.				
February 15,	57° to 58°	147	Zero gains 15 days, M. T.	
" 1,	71°	100	14° gained.	47
" 1,	72° to 76°	92	Zero gains 15 days, M. T. from 15° to 18° gain'd.	55
			Zero same, M. T. from 1° to 5° gain.	8
March 1,	55° to 59°	147	Zero same, M.T. gains 1°.	10
" 1,	59°	137	" " " " 2°.	10
" 1,	60° to 61°	137	" " " " 2°.	16
" 1,	60° to 61°	131	" " " " 1° to 2°.	0 to 6
April 1,	56°	160	Zero same, M.T. gains 7°.	33
" 1,	63°	106	Zero loses 30 days, M. T. gains 12°.	54
May 1	68°	106	Zero loses 30 days, M. T. gains 5°.	16
BARLEY.				
February 1,	55° to 56°	137	Zero loses 28 days, M. T. gains 3°.	15
March 1,	55° to 59°	122	Zero loses 59 days, M. T. gains 11°.	45
April 1,	60° to 67°	92	Zero loses 89 days, M. T. gains 11°.	45
May 1,	66° to 67°	92	Zero loses 120 days, M. T. loses 4°.	81 lost.
June 1,	51° to 52°	168	Zero loses 31 days, M. T. gains 5°.	30 gained.
			Zero loses 31 days, M. T. loses 15°.	76 lost.
CORN.				
June 1,	68°	122	Zero same, M.T. gains 13° to 14°.	30 gained.
" 1,	81° to 82°	92	Zero same, M.T. loses 9°.	61 lost.
" 1,	59°	183	" " " " 22°.	91 lost.

This table proves all that we have contended for—that a reduction of the zero point and an increase of the mean temperature will hasten the maturity of plants. We readily admit that the increase and diminution of the days, according to the table, are not always in the same exact ratio with the increase and diminution of the zero point and the mean temperature, but the slight variation may be readily accounted for, as either resulting from sowing different kinds of wheat, or from the dryness or dampness of the season. The same variations are not so palpable in corn as in wheat and barley.

We deny the assertion of your correspondent, that apples and pears hang longer on the trees here than they do at the north. This assertion is disproved by a single comparison of catalogues, which show that most of the apples and pears of the same kind ripen from four to six weeks sooner here than they do at the north. Now, as a matter of fact, do trees south vegetate that much sooner than they do at the north? We would suppose there was no such difference. Then how are we to account for this difference in maturity? Simply by the difference in the zero point and mean temperature.* We

* If our mean temperature is less than it is at the north, then apples and pears will of course remain longer on the trees here than at the north, not otherwise.

are now eating fine *Seckel* and *Doyenne Sieulle* pears. The latter will not be ripe before October at the north. Then, if *wheat, fruits, etc.*, taken from the south will mature earlier at the north, as intimated by J. B. C., why can you not cultivate the *Lagrange, Smock Free* and *Ward's Late* peaches, which ripen here in September and October? Simply because the season is too short for them at the north, and they will not ripen in September and October there, as is proved by the catalogue of 1858 of Messrs. ELLWANGER & BARRY, of Rochester, N. Y. Consequently, removing them north, so far from hastening their maturity, only procrastinate it.

The doctrine we are attempting to inculcate is not new; it is as old as the time of COLUMELLA, where it will be found more than once referred to. But it is impossible to discuss it in an article of suitable length for your paper. Consequently, we have not done anything like justice to it, important as the subject really is. But before we close, we must make one remark as to the experiment of your correspondent, because he does not inform us whether the wheat experimented with was the same kind or not, nor whether it was planted at the same time or not, nor whether it was planted upon the same or a different kind of land. Until this is done, the experiment is really worthless, for, from the time of the same old author down, we have been told and know by experience that different kinds of wheat require different lengths of time to mature. Consequently, all experiments should be made with the same kind of wheat, planted on the same kind of land and sown at the same time. When all this is honestly done, this theory will prove to be a *stubborn fact*.

RECAPITULATION OF TABLE.

M. Temperature.	Days to Mature.	Days Gained.	Gain over Lowest Degree.
WHEAT.			
56°	160		
57° to 58°	147	13	
58° to 59°	147	13	
59°	137	10	23 days.
60° to 61°	137	10	23 "
60° to 61°	131	6	29 "
65°	122	9	38 "
65°	106	16	54 "
71°	100	6	60 "
72° to 76°	92	8	68 "
BARLEY.			
51° to 52°	163		
55° to 56°	137	81	
58° to 59°	122	15	46 "
66° to 67°	92	30	76 "
CORN.			
59°	183		
65°	122	61	
81° to 82°	92	30	91 "

This recapitulation is so transposed as to put at the head of each column the less degree. We subtract each day from the one immediately preceding it, and each from the less degree and greatest number of days at the head of column.

Any one who may desire to examine this question will find it fully discussed in "Rural Economy" and the other works referred to. N. S. N.

Columbia, Tenn.

MORE GOOD CALVES.—A correspondent in Canada writes us that he has a calf which weighed 174 lbs. when nine days old, and 260 lbs. when two months old. It was raised on skimmed milk.

NOTES FOR THE MONTH—BY S. W.

THE SHORT CROPS IN EUROPE.—A short crop in England thirty years ago would have been immediately confirmed by a great rise in the price of grain there; as farmers would hold back their old grain from the market. But at that time, the whole surplus bread-stuffs of these United States could hardly be relied on for three days' supply to Great Britain. We had no grain from Illinois and the great West then; not a single barrel of flour from the Western Lakes came east, except a little from Ohio. But now, when a million and a half bushels of grain from the great West is received weekly at Buffalo, and as much more is going east by other routes, the English farmers begin to find out that they have a foreign competitor in the market, who will effectually, with the addition of the Russian grain, keep down famine prices. Hence, they continue to supply the market with what they have, freely.

But the present rise in grain, both in England and France, is sufficient to encourage a very large and constant importation of grain, and very remunerating prices will be realized by our farmers for their present crop at least, and very probably for the crop of the next season. Our lake shipping, so long idle, or freighting at ruinous rates, are now making up for lost time by a rise from three cents to sixteen cents the bushel on the freight of grain from Chicago and Milwaukee to Buffalo. The canal freights, heretofore very low, have also advanced to remunerating rates; and our great shipping trade has so much increased that wharves, heretofore laid up by the competition of gas and coal oil, now find employment in the carrying trade.

Then, the business of the Western and through Railroads, both in freight and passengers, has greatly increased, and will be still increasing, to the relief of their long suffering bond and stockholders; while their earnings, in common with those of all the other carriers, add greatly to the trade and wealth of the country. But as there is surplus grain enough in the United States and Eastern Russia to supply all the European demand for breadstuffs, it is to be hoped, for the benefit of all concerned, that no sudden or very great rise will take place, to be followed by that ruinous reaction that such speculation never fails to end in; but that a healthy export demand, at generously remunerating prices, may be kept up for years to come.

MINNESOTA.—There can be no doubt but that the State of Minnesota is for the best farming region for location, soil, and climate, in the same latitude east of the Rocky Mountains. There is an absence of late and early frosts, very common and destructive much farther south. The steady summer climate of that unique region hastens the growth of vegetation, so that both Indian corn and garden esculents mature and ripen much sooner there than they do several degrees farther south.

A friend in South Minnesota, formerly a Cayuga Co. (N. Y.) farmer, who may be relied on for the whole truth, writes that the spring barley crop there gives 40 to 60 bushels to the acre; oats, much more; spring wheat, 20 to 35 bushels, and prime in quality. Potatoes are not only better, but in larger yield than they ever were in Cayuga. The early ripening of Indian corn enables them to grow

the Ohio dent variety. Still, he says, Minnesota is not a corn region proper, as many stalks bear no ears, and the grain does not fill out to the end of the cob as well as it does in Western New York.

In winter, the mercury falls and remains for weeks below zero; but as the wind goes down with the mercury, the cold is not severely felt, and the people soon get used to it; but the very light snows of that region do not prevent the earth from freezing three or four feet deep, which effectually destroys young fruit trees, grape vines, etc. Of all the apple and other trees, vines, etc., he took there, nothing survived the first winter but currant bushes. But as long as Minnesota can export potatoes at the present great profits, she can afford to import apples and other fruit. And from common report, there is no doubt but that the climate of Minnesota is a specific for fever and ague, and for many other diseases that "flesh is heir to" in a more changeable and capricious climate.

DAIRYING.—While grain growing, without stock feeding, never fails to impoverish the soil, the well managed dairy farm is continually growing richer, the interest being added to, not subtracted from, the soil's wealth. Such is the enormous increase of grain at this time from the great West, with the prospect of still greater increase year after year, that we may expect to see low prices for breadstuffs whenever good crops in Europe reduce the export demand from the United States. But the products of the dairy, so far from being overdone, the demand for them is constantly in advance of the supply. It is true, that owing to unusual occurrences butter was cheap last year; yet there was not half cheese enough to supply the demand, even at extra high prices. Now the price of butter is advancing, at the close of one of the best grass seasons we have had in many years; and the demand for cheese to export is so great, that even the second-rate dairies have been bought up at ten cents per lb., so that there is no stock in farmers' hands to supply the increasing home consumption. The shipping demand for butter and cheese will inevitably go on increasing, while the home demand is increasing in still greater ratio. Why, then, will our New York farmers continue to impoverish their farms by competing with the alluvial and yet unexhausted farms of the great West in growing grain for the market, when by dairying and wool-growing they could realize better and more certain profits, while their farms would be growing richer instead of poorer, in all the elements of plant food?

If the limestone soils are not as profitable for dairying as the soil of the high dairy region proper, still, good butter and cheese can be made on them; they will produce as large crops of timothy and clover hay, and to make up for deficient pasture during the droughts of summer, corn may be profitably sown for soiling to help through a drought, after which fall pasture comes on apace. Where spring or running water is deficient, artificial ponds may be made and puddled so as to hold water the year round. At any rate, if the farmer on the calcareous soils will continue to buy their own cheese instead of making it, they will soon have to increase their flocks and the number of their bovines, and make more manure, if they hope to escape HUGH T. BROOKS' "prospective sterility."

WINTERING CATTLE.—The following experiment

proves that warmth is the equivalent, to a certain extent, for food: Five fattening cattle were kept in winter in warm single stalls; five others, of the same weight and condition, were kept in a sheltered inclosure. The latter ate daily 134 lbs. of food, while the former ate but 112 lbs. At the end of April, the beef of the stall-enclosed cattle weighed 3,462 lbs., tallow, 376 lbs.; while the yard-fed cattle's beef weighed 3,216 lbs., tallow, 305 lbs. A Chataogue dairy farmer, who kept each cow in a warm stall at night, from October to April, told me that they ate one-fourth less hay, and kept in better order, than they did when kept through the winter in an open shed.

Your last number was very interesting. You can not call the attention of the farmers too much to the imperative necessity of growing those leguminous "plants that enrich the soil." They are to be the panacea to prevent that "prospective sterility" that is impending under the present practice of soil exhaustion by continued plowing and cereal crops. It is painful to see how much labor is lost among farmers in trying to grow crops on poor, worn soils. A man near this village planted a field of seven acres of corn last year; this year he put the same quantity of manure on two acres, and he thinks he will get as much corn.

There was a light frost back from this warm Lake outlet last night, but it did no injury. Much corn is ripe, but there is more stalk to grain than usual. We never get a large cereal yield of Indian corn without hot, dry weather enough to roll the leaves, and turn the sap to the ear when filling.

After all is said and done, we can't gainsay the Scotch adage, "No cattle, no manure—no manure, no corn." Your experiment in growing Indian corn clearly shows that the grain-growing region in Western New York is neither wanting in phosphoric acid or potash; its nitrogen only has been exhausted by cereal cropping. It is only on the pine plains here that house wood-ashes helps corn and potatoes. Where the deciduous trees grew 40 years ago, wood-ashes has no effect; but old heaps of leached ashes, that have been exposed 40 years to the weather, seem to collect nitric acid from the atmosphere, which benefits both grain and grass. Perhaps that phosphatic guano BOUSSINGAULT refers to, obtained nitric acid in the same manner.

Waterloo, Sept. 10th, 1860.

S. W.

AN UNPATENTED SOWING MACHINE.

EDS. GEN. FARMER:—I have always found the usual method of sowing peas broadcast from a seed box, not only a slow process, but also a severe drudgery, especially when the land is soft. Last spring I resolved to discontinue the practice, and accordingly struck upon a more expeditious and agreeable method. The horses were attached to the market spring wagon, and ten bushels of peas loaded on. On our arrival at the field, three bags were taken off to lighten the load. I then placed a low box in the back part of the wagon, untied a bag of peas in it, placed a horse blanket in front of it to kneel on, and then told the driver to proceed carefully around the field. I sowed with both hands over the back part of the wagon, and finished the land as I went. The tracks of the wagon were a guide to the driver, and the sower, being elevated, could distinctly see where the peas lay. In this

way I sowed at the rate of sixty bushels a day, allowing eight hours per day. It is easy to regulate the quantity, as you can drive fast or slow, as the case may be, and not be as tired after sowing twenty bushels as by sowing five in the usual way.

I usually sow plaster and clover in the chaff in the same way, and would rather bear the taunts of some of my old fashioned friends about its being a "Yankee way of escaping work," than return to drudgery of the old way.

R. W. S.

⁴codstock, C. W., Sept., 1860.

NOTES FROM CANADA.

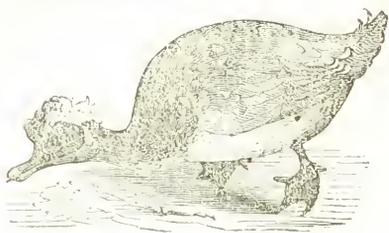
THE WEATHER AND THE CROPS.—During the last few weeks we have had delightful weather—the days moderately warm and the nights cool. No frost as yet, except a very slight hoar frost on the morning of the 2d of September. Wheat is now being very generally threshed out, and does not come up to expectation as regards either quantity or quality. A good deal of fall wheat presents the appearance of having been partially eaten. It appears that the midge-worm hatched out after the grain had begun to harden, and not being able to suck out the juices of the grain, had been obliged to content itself with taking a small nibble off the end, and had then probably perished from weakness and want of nourishment. I have found a great many grubs in the wheat at harvest time, and in most cases they looked dead and shrivelled up. Should it be the case, that they have come too late and so perished, we may reasonably expect that the midge will be less troublesome in future.

Wheat sowing is now very generally through in this section, and the summer-fallows were never in better order. Occasional showers have fallen, which has helped along the preparation of the soil, and the wheat has germinated quickly, and looks of a good color. Grain drills are usually employed for putting in the wheat here, and their use always gives satisfaction wherever I have made inquiry.

ORCHARD CULTURE.—Great complaints are now being made of the short-livedness of apple trees. Many of the orchards appear to be going fast to decay; the trees are dying, and the fruit is of a very inferior quality to what it once was on the same trees. I am frequently asked, why is this? Now, I think a great mistake has been committed in America with regard to orchard culture. The soil is too little cultivated when the trees are young, and too much so when they get old and come into full bearing. While young, the trees are left to struggle through a precarious existence, amongst grass and clover, for years, but as soon as they become old enough to bear being knocked about without knocking them over, the soil is immediately cropped and cropped again with grain, etc., till it is exhausted, and the roots of the trees mangled and torn by the plow at the time when they are disproportionately small to the amount of trunk, branches and fruit they have to supply nourishment to. What wonder, then, if the trees soon die under such treatment. In England, it is usual to keep the orchard in grass after it comes into full bearing, and to stir the soil but at an interval of twelve or fifteen years, and then only in order to apply a dressing of lime to the soil, which is the best manure that can be given to fruit trees.

Hamilton, C. W., Sept. 12, 1860.

J. MACKELCAN, Jr



SOMETHING ABOUT THE MUSK DUCK.

THE Musk duck, more commonly known as *Muscovy* duck, is a native of South America, where it is found in a wild state. The appellation *Muscovy*, by which term European Russia is often designated, is clearly erroneously applied to this bird, whose plumage is thought to emit the odor of musk—whence the trivial name. The French naturalists assert that it is a distinct species and not a variety. It is asserted by travelers that these birds, in their wild state, perch on large trees that border rivers and marshes, similar to terrestrial birds; they build their nests there, and as soon as the young ducklings are hatched, the mother takes them one by one and drops them into the water.

In a domestic state it pairs readily with the common tame ducks, but it is asserted on good authority that such hybrids have proved unprolific. We are unable to ascertain any one instance of these hybrids having bred by themselves—another proof of their being a different species.

The first point that strikes us in the Musk duck is the disproportionate size of the male and female—the latter not exceeding five, or at most six lbs. live weight, while the drake often reaches ten lbs.

Those who expect that its singular appearance would render it a curious if not an elegant companion among our most attractive ducks, will be disappointed; for it will seldom go near the water if it can help it, but it will prefer the farm-yard, the precincts of the kitchen, or even the piggery itself, to the cleanest stream that ever flowed. In fact, it hates water, except some dirty puddle to drink or dabble in. When thrown into a pond, it gets out again as fast as it can. Its very short legs do not appear to be mechanically adapted for the purpose of swimming. It waddles on the surface of a pond as much as it does on dry land; it is evidently out of its place in either situation. Their figure is of an extraordinary elongated character, and the shortness of their legs increases their stumpy appearance. The duck has considerable powers of flight, but her mate's heavier bulk retards his aerial excursions. Being as much terrestrial as aquatic in their habits, they spend more time on land than on the water; and, contrary to the usual habits of this genus, the top of a wall or the low branches of a tree are favorite resting places. Its feet appear by their form to be more adapted to such purposes than those of other ducks.

Although a native of a warm climate, the Musk duck appears very well naturalized in this country. It is fond of warmth—passing the night at the north, not in the open air, but in the fowl-house, with the cock and hens, and selecting by day the most sunny corner to bask and doze in.

It has been asserted that the epithet "musk" has

been given to this duck on account of its exhaling a strongish, musky scent, owing to a humor which filters from glands placed near the rump. On account of this peculiar odor, it is presumed, has been banished from our tables. It is strange that a dish should now be so much out of fashion as scarcely ever to be seen or tasted, which graced every feast one hundred and fifty years ago, and added dignity to every table at which it was produced.

The reason, probably, why this duck is in such ill-favor at the present day, is the musky flavor peculiar to old birds. To remove or take away this musky smell, the flesh of the rump must be removed, and the head cut off as soon as a bird of this species is killed. It is then, if not too old, a very good dish, and as succulent as the wild duck. But to have it in perfection, it should be killed when about seven or eight months old. Whatever is said against it arises, we think, from prejudice; for we never knew any one to sit down to dine off a *young* Musk duck, in good condition, who did not pronounce it really excellent. The flesh is tender, juicy, and not inferior to that of the wild duck, as the writer can testify.

The Musk duck is a prolific breeder, and the newly hatched young resemble those of the common duck. They are delicate and require some care while young, but are quite hardy when full-grown. They are hearty feeders; nothing seems amiss to them—animal substances; worms, slugs, insects and their larvae, are all accepted with eagerness. Their appetite is not fastidious; "they eat all that is luscious, eat all they can," and seem to be determined to reward their owners by keeping themselves in first-rate condition, if the chance of doing so is afforded them. They never need cramming—give them enough and they will cram themselves; yet they have requirements of their own, which must be conceded. Confinement will not do for them; a pasture, an orchard, smooth and level, with ditches abounding in the season with tadpoles and the larvae of aquatic insects, are the localities in which they delight, and in such they are kept at little expense.

It is a mistaken notion to suppose that ducks must have a pond or stream of water; the Musk duck, however, be it remembered, will do very well where there is none. A small, shallow pan placed so as to receive the waste water from the pump or well, will afford every necessary arrangement. We once knew of a brood of seventeen young ducks having been reared in a garret. We have a Musk duck at the present time (August) cooped out under some trees on the lawn, with a brood of fourteen young, which are doing remarkably well. They are great insect-hunters, and it is curious to see their adroitness in capturing them.

The main profit from rearing the duck is its flesh. From our experience, since residing on Springside, it is our firm opinion that ducks can be raised with greater profit, according to the cost of feeding them and watching over them, than most other poultry. It is believed that thousands of farmers would derive as much profit from such incidental appendages to agriculture, as they do from their staple crops. At any rate, they would furnish the family mansion, as it were, without much cost, with materials for good living.

C. N. BEMENT.

Spingside, August, 1869.

FATTENING HOGS.

THE method often practiced by large farmers of turning fattening hogs into the fields of standing corn, if properly conducted, has its advantages over that of gathering the corn and feeding it dry to the hogs in the pen.

The earlier in the season the process of fattening swine is begun the better, after the grain has reached a certain period of maturity, whether it be rye, oats, or corn; because all farm animals, and hogs in particular, will fatten much faster in warm than in cold weather. And the grain between the periods of its doughy state and full maturity, or rather before it becomes dry, is more easily digested and assimilated and converted into flesh and fat than when it has passed into its dry state. It is clear, then, that the sooner the hogs are turned into the field after the grains of corn are fully formed, and while yet in the milk, the more speedily they will fatten; for if the weather be dry the corn hardens very rapidly.

A very interesting experiment in feeding hogs is detailed by Mr. JAMES BUCKINGHAM in the *Prairie Farmer*. On the 6th day of September (in ordinary seasons corn, at this date, is too far advanced to commence feeding to the best advantage), the hogs, 189 in number, were weighed, which footed up in the aggregate 19,600 lbs. A movable fence was used, confining the hogs to an area sufficient to afford food for two or three days. The entire field thus fed contained forty acres, with an estimated average of forty bushels per acre. The consumption of this corn gave a gain of 10,740 lbs. The hogs, when turned into the corn, cost three cents per lb.—equal to \$588; worth, when fed, four cents per lb., or \$1,213.60, giving a return for each acre of corn consumed of \$15.64. Adding to this \$1 per acre for the improvement of the land by feeding the corn on the field, making the actual gain per acre \$16.64, equal to forty cents per bushel, standing in the field. The whole cost of corn per acre, exclusive of interest on the land, is set down at \$3.65.

By way of comparing the advantages of ground and cooked food over that which was merely ground, and that which was unground, Mr. B. put up three hogs into separate pens. To one he fed two and a half bushels of corn in the ear, during a period of nine days, feeding all he would eat; this gave a gain of nineteen lbs.; another eat in the same time one and three-quarters bushels of corn, *ground*, and gained also nineteen lbs.; and to the third, he fed one bushel of corn, *ground and boiled*, which gave a gain of twenty-two lbs. By this it will be seen that one and three-quarters bushels of corn when ground will give a gain of flesh equal to two and a half bushels of unground corn, and that one bushel when *ground and cooked* gave a gain of twenty-two lbs.

The comparative results of these three methods of feeding may be thus set down: one bushel of corn when ground and cooked is equal to nearly three bushels when fed dry and unground; and one and three-quarters bushels when ground and uncooked is equal to two and a half bushels when fed whole.

Or it may be stated thus:—One bushel of dry corn in the ear makes 8½ lbs. of pork, at 4 cents

per lb. is equal to 33 cents per bushel for the corn; while one bushel of corn, ground and boiled, makes 22 lbs. of pork, at 4 cents per lb., and is equal to 58 cents per bushel for the corn.

Had the hogs been turned into the field when the corn was in the milk, it would have given a result more nearly like that of the hog fed upon ground and cooked food.

The obstacles which seem to be in the way of adopting an improved method of fattening hogs result from the imperfect apparatus used for preparing the food. Sending corn a long distance to mill to be ground, and then to cook the meal in an ordinary kettle, even if it holds a barrel, will prove an expensive operation, as all have found who have undertaken it. But to realize the full advantages of feeding prepared food, a complete grinding and steaming apparatus must be erected on a large scale, with the view to perform the grinding, cooking, and feeding, with the greatest facility and at the least possible cost. This may be done to advantage by employing steam for grinding, using the same boiler to furnish steam for cooking the meal. —*Valley Farmer*.

WHERE'S YOUR PROOF?

EDS. GEN. FARMER:—In looking over the April number, I noticed an article on breadstuffs, which, I think, is calculated to do harm. I agree with the writer in all he says about variety. It is universally acknowledged, I believe, that man was not intended to live on a single article of diet, and nearly all physiologists think a variety better adapted to the wants of man. But in what the variety consists, is where we differ. He seems to think it is in similarity. It is useless to say anything to this; any one will see at once that this is not the case. It is no wonder that lie comes to wrong conclusions, as he starts out without knowing what bread is; (perhaps the "Unabridged" does not pass current in Canada West). If he will examine into the matter, he will find that fermentation is not necessary to the existence of "bread." WENSTER says bread is "a lump made by moistening and kneading the flour or meal of some kind of grain, and *usually* fermenting."

I fear the author in question is utterly ignorant of every principle of physiology,—at least he gives our fathers "fits" for boasting how they ground their grain so coarse. But here he furnishes me with arguments—the Scotchman and the New Englander are proverbially the heartiest of people.

In the whole article there is not a single iota of proof or argument. However, I have too much confidence in the farming community to suppose they can be so easily led astray. I believe it is injurious to bolt any kind of grain. It is better unbolted for the following reasons:

First. It saves grain, which seems to be an object with Mr. B.

Second. It makes more wholesome bread. Proof —CARPENTER says (p. 283): "When food is nutritious, but of small bulk, experience has shown the advantage of mixing it with non-nutritious substances in order to give it bulk and solidity; for, if this be not done, it does not exert its due stimulating influence on the stomach." CUTLER says (p. 140): "If the food is deficient in innutritious

matter, the tendency is to produce an inactive and diseased condition of the digestive organs."

Third. It saves labor in preparing, and it is not more than half the trouble for the cook. Proof—The experience of any housewife who has tried it.

Inference—A farmer can do nothing without health. Unbolted meal promotes health; therefore farmers should use it.

In the short space I intend to occupy, I can not enumerate half the benefits that would ensue on eating every kind of grain ground coarse. Farmers could do more work without becoming tired; farmers' wives would not have to slave in the kitchen so much as now; farmers' children would be better natured, and all would be healthier and happier. Hoping for this "good time coming," I hope to hear from Mr. B., and sign myself,

"BE SURE YOU'RE RIGHT, THEN GO AHEAD."

Mr. Shall, Iowa.

NEW SANDY LAND.

EDS. GEN. FARMER:—A considerable portion of the State of Michigan, as well as more or less of all the other States, is composed of what is usually termed sandy land—land that does not pack well for roads, and is harder when wet than when dry. These lands have generally been shunned by the first settlers,—they considering them nearly worthless for cultivation—and they generally lie unimproved and even unfenced, till all the clays and loams are occupied and partially exhausted, before any attempt is made to render them productive, and even then, with the ordinary pioneer culture, little is obtained from them without manure, unless the season happens to be very favorable. But it generally turns out in the end, that, with judicious management, these light, sandy soils, although not producing the largest crops, are the best paying soils in the world, and the intelligent sandy-soil farmer invariably gets ahead of his equally intelligent clay-soil neighbor in the amount of money he lays up.

I do not mean to say that these lands are the best for all purposes—they certainly do not make the best pastures. I merely claim that, for general agriculture, they make better average returns from year to year, according to the amount of money and labor invested, than what are usually termed clay lands, for the following reasons:

There are some exceptions, but generally they lie high and dry and never need underdraining. They are very sensitive to the sun's rays, and they thaw out and become warm and fit for the plow much earlier in the season. They are seldom too wet or too dry to work, consequently less time is lost by bad weather. Crops mature quicker than on clay soils, consequently are less liable to early fall frosts. They are much easier of cultivation, and more acres can be worked in a day with a lighter and less expensive team. In short, they are brought up to and continued in a high state of cultivation at less expense than ordinary clay lands.

The objections to them are, that in their natural state they are more liable to injury from drouth, seldom produce large crops, and do not form a good grass sod.

But let us examine the reasons why they do not enjoy as good a reputation while the country is new as when it becomes old; for I have ever noticed

that in all well cultivated countries, the sandy lands bring the largest price per acre, where both are in a high state of improvement.

All new countries, before much improvement is made, are liable to be overrun annually by fires. On these dry, sandy soils, they burn deep and consume nearly all the humus, and prevent the growth of timber, except some of the most hardy and deep rooted kinds, such as oak, pine, hickory and hemlock. In the lower and more isolated spots, where the fires have been kept out by surrounding wet lands, or by an under soil of clay or loam, more retentive of moisture, the beech, maple, bass, elm, walnut and whitewood flourish. These have a more dense foliage, cast a deeper shade, and the soil being thence more moist, decomposition of the fallen foliage is more favored, and the result is a thick bed of vegetable mold, the accumulation of ages on the surface. The pioneer cuts down the heavy timber and burns it on the spot, at once killing all the vegetable matter, the growth of which would hinder the growth of his crops; and strewing the ground with ashes, the very best stimulant and solvent for this rich bed of humus. Chemically, these soils are then in the condition of the highest cultivated lands. Such lands, and such only, will for a few years give large returns for the meagre culture that the pioneer generally bestows.

Taking the hint from these facts, the more scientific successor commences on the sandy soil by restoring to it the organic matter, the humus, which the fires have consumed. They are already rich in all the mineral elements of plants—possessing in great abundance the silicia and potash so essential to the growth of corn, grain and the grasses; lacking only in humus to nourish the infant plant, and above all to catch and retain the rains and dews about their roots, without which, the plant food, however abundant, can not be assimilated. By the ordinary pioneer manner of cultivating the timbered lands, these sandy soils will produce little except in uncommonly wet seasons. The sand itself holds very little water; besides which, it has been rained upon for centuries, and the rain has sunk into the soil, forming channels downwards, ants have made holes in every square foot, and the rain disappears almost as soon as it touches the surface. The thin coat of humus on the surface, although more retentive of moisture than any other soil, can not supply the demands of the thirsty soil below, and the scorching sun above. Seeds planted upon this surface mold readily vegetate, but as the roots strike down, they find no moisture, and they wither and die or make but a dwarfish growth. But plow deep and break up these downward channels, incorporate this dark surface humus with the underlying sand, and the moisture from the rains is retained about the roots; and, after adding a little to the organic matter by muck, barn manure, or plowing in of crops, no kind of soil is so sure of producing a fair paying crop, and every time you plow or harrow it, and every particle of organic matter you add to it, is sure to be felt and appropriated by the growing plant. Some talk of the leaching of such soils, but with deep culture it leaches just enough to bring the plant food within reach of the roots, and if buried in the soil not a particle of manure will be lost.

My object is not to disparage the more adhesive

and tenacious soils—they are preferable for some purposes, and will perhaps bear harder usage, and feel the effects of manure longer, because it is not so readily assimilated. My only object is to encourage those who think that because a new sandy soil will not produce luxuriantly, with the slight tillage usually given to new beech and maple loams, and will not bear dronth like them, that it is therefore of inferior value for cultivation. S. B. PECK.

Muskegan, Mich.

NOTES FROM DOWN EAST.

EDS. GENESEE FARMER:—Agricultural affairs look more prosperous at present. Considerable rain fell during the past month—enough at least to start the feed and mature the late grain, although wells are yet low, and mills remain silent.

Fruit looks better. Good eating apples are selling in this market at 50 cents per bushel; cooking, at 32 cents per bushel.

Corn promises well if we have no early frost. There was a slight frost on the night of the 2d inst. Corn is selling here at 72 cents. Potatoes are yet free from disease, but most of the tops were killed by rust during the foggy weather of last month. All things considered, potatoes have been the most remunerative crop our farmers could raise. Many hundred bushel are annually exported from this locality. The principal kind raised for exportation is the *Footle*, a variety peculiar to this section. It is a large, white, and strong growing variety, and has not yet been badly affected with the "rot." We export principally to Southern markets, where the colored varieties are not in demand; hence the superiority. Potatoes are dull in market at present, but the average prices in autumn are 42 and 50 cents.

Oats were a fair crop; selling at 42 cents per bushel. Hay still ranges high. Large quantities are yearly exported to Southern markets; there will probably be less this year.

Stock is rather low, particularly young stock; working oxen in fair demand. Owing to the lack of rain during the summer, and consequent scarcity of feed, the products of the dairy are in good demand. Butter is selling at 22 and 25 cents per lb. Poultry in fair demand. Eggs, 12 cents per dozen.

Sheep-husbandry, which is receiving more and well deserved attention from the farmers of this State, is not only prospering, but is highly remunerating. Of horses we have a surplus, and can hardly be given away. Likely four and five years old fillies and geldings, which a few years since would bring \$125 and upward, will not command \$75. The farmers of this State are beginning to reap the reward of their insane passion for horse-raising, to the exclusion of more important subjects, and this passion is still fostered by the County Societies, and various other means.

In the *Farmer* for September, the time for our Waldo Co. Fair was given wrong. It is on the 10th and 12th of October, instead of September, which is too early to admit of all our crops being harvested.

The mean temperature of August was 67.5°—2.5° colder than for August of '59. Extremes for the month were 84° and 55°.

Delfast, Me., Sept. 7, 1860.

GEO. E. BRACKETT.

SALT FOR WORKING OXEN.

EDS. GEN. FARMER:—Under the above caption, in "Inquiries and Answers," of the *Genesee Farmer*, No. 5, vol. 21, p. 160, are several inquiries in respect to the use of salt for working oxen, by "A." Now, with your permission, I will give my answers to them, and hope others will do the same.

1. "How much salt must I give my working oxen?" Friend A, you need not give them any. BOUSSINGAULT experimented upon fattening steers for eleven to thirteen months, and decided "that the increase in the proportions of flesh does not pay for the salt employed."* I have tried the use of salt for all kinds of stock, and tried the same without it, and am satisfied that they did the best without.

2. "Had I better give it with their feed or separately?" You had better not give it at all. If your feed is such as it ought to be, there will be an abundance of salt contained in its constituents; but should your soil be badly exhausted of all the essential salts necessary to produce a good crop, give the land the salt and restore it to productiveness.

3. "Will it injure them to give them all they can eat, and to leave it where they can lick it at their pleasure?" Most assuredly it will. It will cause such an intolerable thirst that the water and salt will prove to be a powerful cathartic, and they will only overcome this effect in the same way that man can habituate himself to the use of deadly poison, by the system becoming deadened to its debilitating effects. This being the case, it cloy's their appetites by the amount of water required, and ultimately produces disease in some form. O. W. T.

Elm Tree Farm, Maine.

THE AMERICAN LOTUS AS A SUBSTITUTE FOR THE POTATO.

MESSRS. EDITORS:—In your issue of August 9th, you notice the Apio or ovate Aracacha as a substitute for the potato. In connection with it, and some of the valuable tuberous lillies, permit me to name the *Nelumbium Luteum*, or great nut-bearing lily, which, in the estimation of the writer, surpasses all other aquatic plants of the United States in beauty and utility. It grows abundantly in the shallow and stagnant waters of our Southern and Western States, and has been found flourishing as far north as the bays and inlets of Lake Erie. It is properly the Lotus of North America, yielding a collection of tubers much like the sweet potato, at its roots under the water, and also a liberal supply of nuts at the top of its stem. The nuts are all ripe at the same time, are about the size and color of medium white-oak acorns, so that they might easily be mistaken for them. The nuts are used as food like the chestnut, and are a valuable substitute for coffee. The writer has gathered twenty-one perfect nuts from a single stem. By the extensive culture of this noble plant, many of our pestilential pools and marshes, instead of exhaling poisonous malarial, will at once become fountains of life-giving fertility.—FORREST SHEPHERD, in the *Homestead*.

* This is true; but BOUSSINGAULT distinctly stated, if we recollect right, that the cattle having the salt were more healthy and active than those that received none. EDS.

FATTEN HOGS EARLY.

WE have used this caption, or its equivalent, on former occasions. It has been brought to mind by reading an article from a correspondent of the *Ohio Farmer*. He first "hogged down" (in western parlance) forty acres of corn, between the 10th of September and the 23d of October. By the hogs being weighed when they were turned in and when they were taken out, it was found that they paid forty cents a bushel for the corn, estimating the pork at four cents per lb., and corn at forty bushels per acre.

His next course was to take one hundred hogs, averaging 200 lbs. each, which were placed in nine covered pens and fed all they could eat of corn and cobs ground together, steamed, and given in allowances five times a day. In a week they were again weighed, when, reckoning 70 lbs. of corn and cob as equal to a bushel of corn, and the pork as before, the hogs paid 80 cents a bushel for the corn. The weather was warm for the season.

The same experiment was tried again the first week in November, when the corn brought 62 cents, the weather being colder. The third week in November the corn brought only 40 cents, and the fourth week the corn brought but 26 cents, the weather continuing to grow colder. Another lot of hogs was fed through December, which gave only 26 cents a bushel for the corn. A part of the time the temperature was at zero, and then the hogs only gained enough to pay *five* cents a bushel for the corn, and afterward, when the mercury went down to ten degrees below zero, the hogs only held their own.

The inference from these trials is, that in general it is not profitable to feed corn to hogs after the middle of November. The difference in gain is certainly surprising, and whether caused altogether by the difference in temperature or not, no person of observation can doubt that hogs gain much more in proportion to the food consumed, in mild than in cold weather. It seems that the hogs gained much less by helping themselves to corn in the field than when the corn was ground and cooked and fed to the animals in pens, under equal advantages of weather.—*Boston Cultivator*.

SETTING FENCE POSTS.

EDS. GENESEE FARMER:—It has been asserted by correspondents of the *Farmer*, and others, that wooden posts will last longer with the *top*, than with the *butt*, end in the ground. I have often heard a similar opinion expressed in regard to fencing stakes. Now if this is so, there is undoubtedly a cause for it. What is that cause?

In connection with this subject, the following ideas have been suggested, which, if erroneous, can be refuted; if correct, can do no harm.

Premised—that moisture continues to follow, in a certain degree, the same course through the pores of wood after death as when alive.

Those who assume to know, inform us the sap of a living tree passes from the roots upward thro' the wood of the trunk to the leaves, there to undergo certain chemical changes, and then flows downward principally between the bark and wood to the roots again—thus forming a current of sap or moisture, whose course is always upward through

the pores of the wood, and downward between the bark and wood.

Therefore, if wood after death be placed in its original position—the butt end in the ground—this upward movement of moisture through the pores of the wood may still continue, although to a small extent, yet still enough to keep the lower end of the wood partly saturated with water—thus facilitating its decay.

Again: if the wood be inverted, whatever influence is exerted in the former case to cause the moisture to rise or flow upward, the same influence will be exerted in the same degree to oppose its entrance into the pores of the wood.

If, as has been asserted, the decay of wood is prevented to a certain extent by placing in an opposite position from that while alive, it deserves to be generally known.

It is a subject of much importance, and all facts tending to prove, or disprove, should be elicited.

Belfast, Me., Sept. 7, 1860.

G. E. BRACKETT.

WEIGHT OF HAY FOR SHEEP.

THE question is often asked,—How much hay do sheep or cattle require per day? In reference to sheep of a given size, this question is well answered in a letter of the noted sheep-breeder, ALEX. SPECK VON STERNBURG, of Lutzschena, Saxony, to Hon. Jos. A. WRIGHT, American Minister at Berlin. He says:

"One-thirtieth part of the weight of the live animal in good hay is considered necessary per day for its sustenance. According to the quality of the fodder, and its abundance or scarcity, this may be increased to one-twentieth part; but less than one-thirtieth part ought not to be given. Taking good meadow hay as the fodder standard, a ram should receive about $3\frac{1}{2}$ lbs. per day, an ewe about $2\frac{3}{4}$ lbs. per day, yearlings, etc., in that proportion—taking the average of a full-grown ram at 110 lbs., of an ewe at 82 lbs., the weight of each varying, according to age, size and condition, between 105 and 125 lbs. as regards the full grown rams, and from 70 to 85 lbs. as regards the ewes. The weight of a wether varies between 80 lbs. in lean condition and 110 and 115 lbs. if strong and fat for the butcher. One lb. of good meadow hay is considered equivalent to one and two-thirds lbs. of oat, pea, wheat, or barley straw, four lbs. of turnips, or two lbs. of grains in the wet state, as daily delivered from the brewery in the winter. When the time for stabling for winter arrives, the sheep-master has his supplies of straw, hay and turnips, allotted to him on the basis of the above calculation, and he is bound to make them serve out the proper time, under feeding being as much guarded against as over feeding and waste.—*Boston Cultivator*.

RATS.—Noticing a communication in your paper for September, entitled, "To keep rats from grain stacks," I will say, some four or five years since, my cellar became musty, to overcome which my wife sprinkled a solution of coppers (pretty strong) over the bottom. Since that time we have seen no sign of rats about the house, notwithstanding there has been plenty of them about the barn and other buildings on the premises.—D., *Gates, N. Y.*



A DAY IN A PEAR ORCHARD.

IN the second week of last month, we spent a day in the extensive pear orchard of W. H. LEE, of Newark, Wayne, Co., N. Y.

This orchard was set out in 1850, by the late Mr. E. BLACKMAR. It occupies 40 acres, and contains about 8,000 dwarf pear trees and 2,000 standards, and is, we believe, the largest orchard of dwarf pear trees in this country, or probably in the world.

When set out, the principal variety was the *White Doyenne* or *Virgalieu*. When the trees came into bearing, the fruit cracked so badly that the trees were re-budded with other kinds, such as the *Duchesse d'Angouleme*, *Louise Bonne de Jersey*, *Bartlett*, *Flemish Beauty*, etc. This was done four years ago, and the trees are now coming into full bearing. This year, the crop is quite large and fine. At the time of our visit, there were some three or four thousand of these double-worked *Duchesse d'Angouleme* trees that were loaded with heavy crops of large, handsome fruit. The fine pyramidal trees of *Louise Bonne de Jersey* were also full of fruit, and presented a most beautiful appearance. There must be over a thousand trees of this variety, all healthy, vigorous, and highly productive. The *Bartletts* were all gathered, but we believe the crop had been very good. Some of the earliest *Bartletts*, picked August 14, were sent to Boston and brought \$20 per barrel! The remainder of the crop, picked later at different times as the fruit was ready, was sent to New York and brought from \$8 to \$13 per barrel. There can be little doubt that this orchard, which looked so discouraging for the first six years on account of the cracking of the *Virgalieus*, will yet prove highly remunerative.

The soil of this orchard is a gravelly loam, resting on a clayey subsoil some fifteen or eighteen inches beneath, and the whole resting on a substratum of coarse gravel, which affords perfect drainage. It has been thought that the soil was too light and gravelly for pears, and the cracking

of the *Virgalieus* has been attributed to this cause. Be this as it may, other varieties in the same orchard do well. And we noticed a fact which seems to indicate that the cracking is not owing to the soil. Several *Virgalieu* trees had only a portion of their branches re-grafted with the *Duchesse d'Angouleme*, and on these trees the *Virgalieus* were cracked and worthless, while the *Duchesse d'Angoulemes* were entirely free from this disease. Here both varieties were growing on the same tree, both receiving the same plant food from the soil, and one is diseased and the other healthy! This does not prove, however, that the *Virgalieu* is not more liable to crack on some soils than on others. It does not prove that *Virgalieus* would have cracked on heavier soils.

Last year Mr. LEE sowed a part of his orchard with rye seeded with clover, with the intention of turning in the clover for manure. The rye was not suffered to mature its seed, but it proved, nevertheless, very injurious to the trees. They presented a yellow, sickly appearance, and the *Virgalieus* were cracked worse on this part than on any other.

For the last two years, Mr. L. has sowed, each year, 6 bushels of salt and 10 bushels of unleached wood ashes per acre on a part of the orchard, and he thinks this part of the orchard decidedly the best.

We may mention that the *Flemish Beauties*, on the double-worked trees, are exceedingly fine, and the trees healthy and very productive.

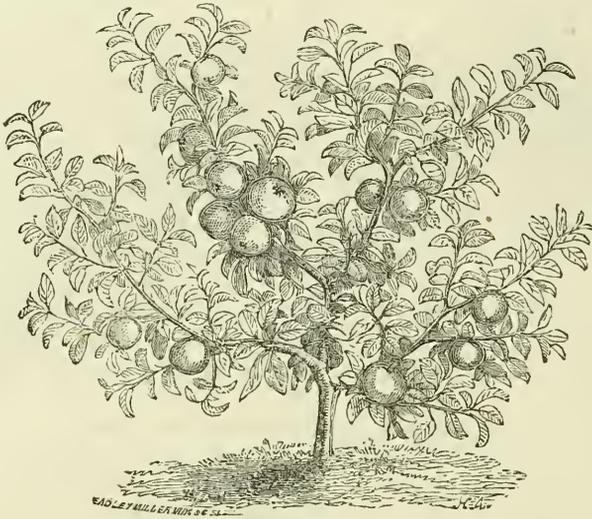
A FEW WORDS ON GRAPES.

THE *Rebecca* grape fully matured here, in one situation, this season, by September 1st. This was in an open garden, and without any means having been taken to hasten its time. Another vine we had the pleasure of seeing did not perfect its fruit until Sept. 10th. The *Rebecca* must be considered the earliest ripening grape yet introduced.

The *Logan* was well colored and fit to pick for market on the 10th of September, although it would improve by hanging still longer.

Hartford Prolific came in season about the same time as the *Logan*. With our limited knowledge of these two grapes, we do not feel at liberty at present to make a comparison of their respective merits.

The *Delaware*, Sept. 15th, is well colored, sweet and excellent, although it will no doubt continue to improve yet for the next week or ten days. So far, this new fruit proves itself to be all that has ever been claimed for it, and it must become gen-



DWARF APPLE—WAGENER.

erally disseminated over the country. No one can plant a vine of it too soon.

Diana is now (Sept. 15th) coloring finely and beginning to be eatable—ten days will see it in fine condition. This, like the *Delaware*, is in every way suited to the wants of the public, and must soon become very popular.

Concord is coloring very fast, and will probably mature about the time of *Diana*. Its bunches are magnificent.

Isabella has just commenced to color in the most favorable localities, while a great portion of the fruit is yet quite green.

Catawba, of course, is still later.

We had nearly forgotten to mention *To Kalon*. This is a fine fruit, bunches and berries *very large*, with a flavor quite similar to *Catawba*, and ripens fully as early as *Diana*.

BLANCHING CELERY.—Some use charcoal, some sawdust, some charred earth, and so forth. The *Germantown Telegraph* says: "Better put aside all these fancy appliances, and continue to depend upon old mother earth in the natural way, and use it skillfully, if you wish to be sure of well-blanching sweet celery."

GRAPE MILDEW IN FRANCE.—The *Journal d'Agriculture Pratique*, of August 15th, states that the mildew on the grapes in the wine districts of France is more this year than ever before—owing, probably, to the cold, wet season. Where the vines have been carefully dusted with sulphur, and in good season, it proves an effectual remedy.

DWARF APPLE TREES.

DWARF apple trees are fast becoming favorites. Although they will never be so extensively employed for orchards as dwarf pears, they will undoubtedly be freely brought into gardens, where a variety is desired in a small space. Every season proves these trees to be what they have been sent out for. They are productive and easily managed; the heads being low, they are easily sheltered and protected, if necessary, during winter. Every part of the tree is immediately under the eye of the cultivator, by which he is able to control perfectly their forms, and to destroy any insects that may attack them.

We are aware that the public know little of these trees, but, after several years observation, we have no hesitation in testifying to their value. The trees can be planted six feet apart, so that quite a variety may be planted in almost any garden, without occupying much space.

Like pears grown on dwarf trees, the fruit of dwarf apple trees is usually larger and finer than the same varieties grown on standard trees.

The best age to transplant the trees is at two years from the bud or graft, and they will commence to bear the first year after transplanting.

At the West, where fruit is scarce and immediate produce very desirable, and where, also, high winds are prevalent and the changes of temperature in the winter season are very sudden, we think these trees might be planted to great advantage. And, indeed, we are aware that the Western people have already commenced to plant them considerably.

AMERICAN POMOLOGICAL SOCIETY.

THE biennial meeting of this Society was held in the city of Philadelphia, on the 11th, 12th and 13th of September.

The Convention was largely attended, and the discussions were of great interest. There were some fine collections of fruit, but on the whole the display was not as large as might have been expected.

The President, MARSHAL P. WILDER, delivered an appropriate, able, and eloquent address at the opening of the Convention. He congratulated the Society on the general interest now awakened in fruit-culture, and on the multiplication of local associations and publications laboring for the promotion of pomology. Instead of attempting to revise the list of fruits recommended for general cultivation, at this session, he advised the appointment of a Special Committee for this purpose, who shall make it their business to receive reports from the various local societies throughout the country, and prepare revised lists and present to the Society at its next meeting.

He alluded to thorough drainage as indispensable to the fruit-grower; thought we should give more attention to location, but especially to the *aspect* of trees. A common error is to disregard the time of ripening. We plant our early fruits in the warmest and most genial locations. These should be assigned to our latest varieties. For instance, we, at the North, have too often placed our late fall and winter pears, like *Easter Beurre*, or *Beurre d'Armenberg*, in northern aspects and exposed positions, where they are liable to injury by the gales and frosts of autumn, whereas we should have given them a southern aspect, and our most fertile soils, to bring them to perfection. The most favorable locations are not so indispensable to our summer fruits, which mature early under the more direct rays of the sun, and in a much higher temperature.

He spoke against the practice of growing crops among fruit trees, or of relying upon small circles dug around trees in grass ground, instead of cultivating the whole surface. Deep digging or plowing among the growing trees was also injurious, cutting off the roots and destroying the fibrous feeders. The surface should be worked by a hoe or scarifier, for the purpose of stirring the soil and keeping out the weeds. He recommended applying manure on the surface, in the autumn, instead of burying it deep in the soil.

From many invitations, the one from Boston was accepted for holding the Convention in 1862.

The lists of *Fruits that promise well* were discussed and extended, and now stand as follows:

LIST OF APPLES WHICH PROMISE WELL.—Broadwell Apple, Buckingham, Cogswell, Fornwalder, Genesee Chief, Jeffries, King of Tompkins County, Mother Apple, Smoke House, White Winter Pearmain, Winter Sweet Paradise, Winthrop Greening, Summer Sweet Paradise, Canon Pearmain, Fall Wine, Early Joe, Willow Twig, Limber Twig, Bonnum, Stansill, White Pippin, Pryor's Red, Keswick Codlin, Rawle's Jeanette, Maiden's Blush, Pomme Royal, Summer Queen. [The last fifteen varieties were added at this meeting.]

CURRENTS.—The previous list of this fruit comprises only three varieties which promise well—Versaillaise, Cherry, and Fertile de Palha. Of these the Cherry currant became the subject of an interesting debate.

Messrs. WILDER, LYON, LAWTON, HOVEY, and DOWNING, agreed in pronouncing it inferior in quality, extremely acid, and destitute of flavor. Messrs. HOOKER, WARDER, BARRY and others, spoke in its praise, and the motion to strike it from the list was lost.

Of other varieties, the Fertile d'Angers, Striped currant, La Hative and Prince Albert were spoken of with favor, but not put upon the list; while two varieties, the White Gondoin and Imperial Yellow, the latter a new French variety, were highly recommended, and by vote added to the list.

STRAWBERRIES.—The present list of varieties which promise well being Genesee, Le Baron, McAvoy's Superior, Scarlet Magnate, Trollope's Victoria, Walker's Seedling, and Triomphe de Gand. Only one addition was made—the Jenny Lind. (It must be remembered that the first recommendations of the Society, the lists for *general cultivation*, were not under discussion at this session.) The present discussion was remarkable for the fact that the two strawberries most praised were the foreign varieties of Vicomtesse de Hericart and Triomphe de Gand. American cultivators have of late years abandoned all hopes of procuring any strawberries of value in this country from the foreign varieties. It was, however, remarked by Mr. HOVEY and others that a distinction should be made between the English and Continental varieties. That in Belgium their cultivators had been propagating for some years from our best American sorts, and a higher result might be expected than any we have yet reached.

RASPBERRIES.—The present list of those that promise well, comprises only four varieties: the Cope, Catawissa, Thunderer, Walker. The additions are the Hornet and Belle de Fontenay. The Allen raspberry was, after much discussion, and a strong minority vote in the negative, placed on the list of *Rejected Fruits*.

BLACKBERRIES.—Mr. HARRISON spoke of the Grape blackberry as very prolific, strong grower, and fine for wine. The Thornless blackberry was referred to as having very few thorns, and fewer berries.

Mr. LAWTON introduced an old variety called the Parsley-leaved, or Cut-leaved, blackberry—a trailing sort, suitable for running upon stone walls, very ornamental, and forming a good barrier as well as having a very fine fruit, somewhat smaller than the Lawton.

GRAPES.—The following are some of the newer varieties proposed, but not classified by vote:

The Bullitt Grape—Said to be hardy and two weeks earlier than the Isabella, by Messrs. MILLER, of Pa., and BRYAN, of Ky.

The Raabe Grape—Commended as one of the best American grapes, sweet and hardy, by Messrs. PRINCE, of N. Y., SCOTT, of N. J., MITCHELL and RUTTER, of Pa.

The Maxatawny—A new grape of Berks Co., Pa., a hardy white variety, like the Malaga, but having the American leaf. Commended by MITCHELL, of Pa.

The Clara—Amber color, nearly white; spoken well of by Mr. SCOTT, of N. J., and Dr. GRANT, of N. Y.; while it mildews with LYON, of Mich., and MILLER, of Pa.

To Kalon—Commended by STRONG, of Mass., and LYON, of Mich.; but HOOKER, of Rochester, and Dr. GRANT, of New York, have found it to rot.

The Clinton received very warm commendations from many leading delegates, as a hardy, productive grape, valuable especially for wine.

The Marion—Also praised for similar qualities.

The Pauline—Spoken of highly as a Southern variety. Dr. GRANT remarked that Southern grapes were never of the class termed sweet and luscious, but brisk and vinous.

Allen's Hybrid—A promising new white grape, transparent like the Chasselas.

Roger's Hybrids, of some forty varieties, of which about fifteen varieties promise very remarkable results, being the seedlings of a Massachusetts amateur, obtained by crossing American and foreign grapes. Too short a time has yet passed for positive statements to be given, but the highest hopes of them are entertained by President WILDER and others.

PEARS.—The Beurre Hardy is worthy a special notice as one of the best, say Messrs. BARRY, WILDER, FIELD and REID.

Beurre Kennes—Col. WILDER, addressing the ladies, remarked, "My wife says it is next to the Seckels."

Beurre Sanglier—Commended by Col. WILDER, and by Dr. WARD, and by Mr. REID, of N. J.

Beurre Nantais—Messrs. FIELD, WILDER, BARRY, and others, spoke well of it.

The Chancellor, Sterling, Duchesse de Berri d'Ete (one of the very best summer pears), Fondante de Comice, Fondante de Malines, Henkel, Hosen Schenck, Hull, Kirtland, Lodge, Ott (a seedling of the Seckel, ripening in August), and Philadelphia, were all highly praised by influential delegates; while the Charles Van Hoohten was charged with killing every tree upon which it was grafted or budded, and therefore stricken off from the recommended lists.

Fondante de Noel shared a like fate, because it "never ripens."

The following were the successful candidates for the list of *Pears that promise well*:

Washington Pear, Beurre de Montgeron or New Frederick of Wurtemberg, Uewehled Poire des Nonnes, Omar Pasha, and Uwehlan.

For cultivation on the quince stock, the following were generally praised, but not officially placed upon the list: Flemish Beauty, Howell, Tyson, Brandywine, Osborn's Summer, Duchesse de Berri d'

Ete, and Beurre Langlier; while the well known Bloodgood, though admitted to succeed well at first, was stated by BARRY and others to last but a short time.

THE CULTURE AND DISEASES OF THE GRAPE.—The various forms of rot and mildew, the result of, or accompanied by various species of fungus, were described by Mr. SAUNDERS, of Philadelphia. Dr. GRANT has successfully used flour of sulphur. While under glass, Mr. SAUNDERS recommended fumes of sulphur, keeping the floor constantly dampened, and upper ventilation. The preparation of the ground for grapes enlisted much interest. A condensation of the best advice is: Trench 20 inches deep; apply liberally well rotted manure, or compost of manure and "muck," having it well mixed throughout the soil. After the plants are growing, apply manure only to the surface, in a well rotted state.

PEAR CULTURE AND DISEASES.—Dr. WARDER, of Ohio, described the Western method of preparing for the pear orchard, which was by the use of "double Michigan" plow, followed by the subsoil plow, reaching a depth of 22 inches. As for manures, nature had been more liberal with them than with Eastern soils, and it was scarcely necessary for Western growers to use manure.

Mr. FIELD, of N. Y., as the representative of the Eastern mode, claimed the spade and thorough trenching, with stratum on stratum of manure, well worked and intermixed, as essential to success. As an epitome of his views, he presented the following six maxims:

1st. The soil in which trees are planted should receive all its deep cultivation and manuring before planting.

2d. The whole area of ground on which trees are planted should be as deeply stirred as the deepest hole dug for their roots.

3d. The manure used must be perfectly decomposed.

4th. The best soil will not be less than twenty inches deep.

5th. After trees have commenced vigorous growth, the soil around and above the roots ought not to be stirred more than two or three inches, or not deep enough to touch their roots.

6th. Manures, after trees are planted, should be applied to the surface.

Dr. BOXTON, of Syracuse, who certainly had on exhibition the best *colored* specimens of pears, gave the extreme of the mineral manure practice, and talked only of phosphates and chlorides, even on a hill-top where the rains had washed away the soil. He said he would prosecute any man who should empty a load of manure on his grounds. He, however, made an exception in favor of dog manure, of which he had gathered and used large quantities. Older cultivators smiled and shook their heads at his *dogmas*.

In planting, all agreed that when on quince stocks, the point of union in grafting should be placed two or three inches below the surface.

The following officers were elected for the next two years: President, Hon. MARSHALL P. WILDER, of Boston. One Vice President from each State and Territory in the Union. Treasurer, THOS. P. JAMES, Philadelphia. Secretary, THOS. W. FIELD, New York.

NEGLECT OF ORCHARDS—THE PRESENT FRUIT SEASON.

EDS. GEN. FARMER:—Reading your article in the September number of your journal on the subject of "Neglect of Fruit Trees," I am constrained to add a few lines upon that important matter.

I daily pass by an old orchard of *Baldwins*, *Greenings* and *Russets*, which must have been planted as much as thirty years, containing fifty or sixty trees—some of them being of good size, but most of them not six inches in diameter, perfectly grass-bound, covered with moss, with very little top, and that fast coming to nothing! It is true the man who set it does not now own it, but somebody else has since had possession of it, and might have made it yield well, as it is favorably situated. Room for horse lots, however, will soon finish it.

Another orchard near by has been set by a gentleman within ten years past; but as he attends to *politics* more than to his trees, he will not aid the glut of the market, probably, for some years to come! His trees are set in cold, low grass-land, are not dug around, are covered with lichens, and have not yet attained two inches in diameter.

About four years ago, thirty or forty apple trees were set on the borders of the Boston and Lowell Railroad. The second year, they were suffered to become grass-bound. A dam was soon built which overflowed many of them with water, and as I daily pass I now discover only a few remaining *sticks*.

I might extend this picture, but it is not agreeable. Setting an orchard is not a difficult thing, neither is the growth of the trees, if the soil be kept up and well cultivated. Under such circumstances, the trees will require little or no manure of themselves. But the owner must take an interest in his fruit raising; he must have his pet and choice kinds; he must love them almost as he does his children, and he will no sooner neglect them. I have seen an orchard do very well on grass land, but then a radius of four feet was kept open and well dug and manured every year, or two years at least. When I first began to cultivate trees, I read that manure should not be put into the hole at planting. I thought that was very convenient; so planted some in new pasture without any, but soon discovered my mistake. It is well to put some well rotted manure into the hole, and rather more upon the surface in the fall, if the setting is done at this season. Privy slosh is excellent, poured upon the surface.

The present season is very prolific in fruit, both pears and apples; but of the winter fruits, shipping will take off a great quantity. Farmers can not get so good a price for it as in some previous years, yet they have more of it. Besides, one of the great objects of fruit-culture is obtained, viz.: fruit plentiful for the mass of the people. *Astrachan*, *Williams* and *Gravenstein* apples are and have been very abundant, and are the leading apples of the season. The *Red Astrachan* has rotted badly on the trees, owing to the damp weather and to the fact that they usually grow in clusters so as to touch each other. Very large specimens of apples have been exhibited at the Mass. Hort. Society. For instance, a dish of *Porters*, whose specimens must have been four inches in diameter, and the *Williams*

of equal size! *Belle Lucratives* as large as good sized *Beurre Diels*, and splendid *Muskingum* pears. [Somebody attends to their trees!] Summer and autumn apples are at the present season bidding defiance to the world. But fruit brings only about half the usual price, it is coming in so bountifully. A dealer in Quincy Market, Boston, told me a few days ago that he could buy excellent autumn apples at \$1.25 per barrel. He showed me some very large *Williams*, however, for which he asked \$1.75 per bushel—but poorer specimens range from \$1 to \$1.25. A retail dealer showed me a bushel of very fair and eatable pears, for which he gave \$1. He said a year ago he would have given \$3. Fine *Bartletts* can be bought for \$3, which quality has formerly brought from \$4 to \$5 per bushel.

Congratulating the progress of horticulture, and believing that the country is not yet unbalanced for the want of cultivators, I remain yours, etc.,

West Medford, Mass.

D. W. L.

SHELTER FOR AN EARLY GARDEN PLOT.

COBBETT, in the *American Gardener*, describes his method of making a screen of broom-corn stalks for a small plot in the garden where he wished to raised early vegetables, or to keep the cold winds from his hot-beds.

"Put some locust-posts along at eight or ten feet apart. Let these posts be ten feet high, and squared to three inches by three inches. Lay a bed of bricks, or smooth stones, along the ground from post to post, and let this bed be about seven or eight inches wide. This bed is for the bottoms of the broom-corn stalks to stand on. Go on one side of the row of posts, and nail three rows of strips, or laths (best of locust,) to the posts. The first row at a foot and a half from the ground; the second row at six feet from the ground; and third row within six inches of the top of the posts. Then do the same on the other side of the posts. Thus you will have a space of three inches wide, all the way along, between these opposite rows of strips. Then take fine, long, straight broom-corn stalks, and fill up this space with them, full and tight—putting them, of course, bottoms downward, and placing these bottoms upon the bricks. When the whole is nicely filled, strain a line from top of post to top of post, and according to that line, cut off the tops of the broom-corn stalks; and, while the fence will look very handsome, it will be a *shelter* much more effectual than pales or a wall; and, in my opinion, will last as long as the former, unless the former be made wholly of locust. Stalks, rushes, reeds, straw, twigs, boughs—anything of this kind, formed into a fence, or put up as shelter, is preferable to any thing *smooth* and *solid*. Grass will shoot earlier under a *bush*, than under a wall, or even a house. A wall will not save your ears from the sharp winds so effectually as even a thin hedge. The American farmer knows well the warmth that walls of corn-stalks afford."

A screen five or six feet high, would afford sufficient protection for most purposes; and this might be made of corn-stalks where broom-corn stalks can not be obtained.

Ladies' Department.

A COUNTRY COTTAGE.

The stream ripples bright by my cottage;
 The sunshine is bright on the stream;
 And the wee, pebbly stones, in the sunshine,
 Like diamonds, sparkle and gleam.
 There are hazel trees kissing the water,
 And plumes of the fair meadows sweet;
 And down by the hazel sis Jeanie,
 And dabbles her little white feet.

The robin peeps in at my doorway;
 The linnet looks down from the tree;
 And here, pillowed up in his cradle,
 Wee Sandy sits smiling at me.
 My milk-pail stands bright in the corner,
 My tins are all bright on the shelf,
 And the white supper-cloth on my table
 Is clean, for I washed it myself!

IDLENESS A CAUSE OF DISEASE.

THE number of servants kept by families in this country is an evil in more respects than one. It fosters indolence in wives and daughters, thus throwing heavier burdens upon husbands and fathers, and making the comfort of the household almost entirely dependent on a class (Irish servants, we mean) who, as a general thing, have no interests or sympathies in common with the families in which they reside, and who make waste, instead of economy, the rule. The annoyance and discomforts of a domestic establishment always increases in proportion to the number of servants employed. With one domestic a lady may get along quite pleasantly, and be really the mistress of her own house. She will then find enough to do to keep the blood circulating freely in her veins, and her mind in that cheerful state which always accompanies a consciousness of having done some useful work. One servant in a moderate sized family, and a willing heart, dutywards, in the mistress, will keep out the doctor, the blues, and the domestic irregularities that form the common theme of talk among most American housekeepers. But give Biddy a companion in the shape of nurse, waiter, or chambermaid, and the day of home comfort has departed. At once a new interest, antagonistic to your own, is set up, and you may consider yourself a second power in the kingdom. Waste, disorder, and annoyances of various kinds appear, and you war against them in vain. The work that, with your assistance, was easy, has become so hard, that sour faces and complainings meet you at every turn, and in the vain hope of relief you give strength to your enemies by adding a third to their number. Alas for you after that most serious mistake of all! Two servants in a house are bad enough, but with three the case is hopeless. Four or five are sometimes resorted to after this, in the vain struggle for relief—of all unfortunate housekeepers these last are most to be pitied. The general of an army has a lighter task than the lady who attempts to manage four or five servants.

Pride, self-indulgence, and idleness, lie at the root of nearly all the troubles that afflict housekeepers. Verily, we are in the hands of Philistines who are despoiling wives and daughters of health, and husbands and fathers of their substance. Not one woman in twenty is now able to rule her house, nor one man in twenty sure of order and

comfort in his home for three days in succession.

The remedy for all this lies only in one direction. Lady housekeepers must begin to work in an inverse order in the matter of servants, and diminish, instead of increasing the number. In every house where there are two or more servants, let the experiment be tried of dismissing one, and dividing her duties, if need be, among the growing up girls of the household, if there are any such—the work will do them good in mind and body. If additional work falls on the mistress, it will, in four cases out of five, be a useful change for her, and make her feel better, mentally and physically. Such a general dismissal of servants would help to bring Biddy to her senses, and teach her a few lessons that she greatly needs to learn.

As to the doing of household work by delicate and dainty hands, that now lie for hours each day in fruitless idleness, the honor is all on the side of doing. Idleness is always discreditable, and useful work always honorable.—*Arthur's Home Mag.*

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

MANGOES.—Just before early frosts, take all the green muskmelons that you have, and cut out a small slice from each, large enough to admit your finger to take out the seeds. Then put the slice back again in its place, and tie a string around the melon to confine it. When all are done, put them in salt and water for three or four days. Take small vegetables of any kind, such as cucumbers, radish, pods, onions, small unripe tomatoes, slices of carrot and horseradish, and throw them into salt and water. When the melons are ready, they can be filled with these ingredients, with the addition of two teaspoonsfull of mustard seeds to each, and covered with boiling vinegar.

TO BEAT THE WHITES OF EGGS.—It is a mistaken idea that is held by some housekeepers, that the whites of eggs require beating for half an hour to bring them to a foam. A stiff froth can be produced in less than five or even three minutes, by beating rapidly without stopping from the time you commence till done.

TO PICKLE PLUMS.—To one quart of vinegar allow a pound of common sugar, four tablespoons of cinnamon and a little allspice. Boil these ingredients together, and pour while hot over the plums. The fruit should be nearly ripe.

TO PICKLE RIPE TOMATOES WHOLE.—Put them in a jar or barrel and pour cold vinegar over them. Tie up some spice of any kind in a little bag, and put to them. They will keep all winter without being tied up, and will be a delicious pickle.

TO MAKE CAKE LIGHT.—Reserve the whites of eggs and the soda till after the other ingredients are mixed. Then put in the soda, and the whites after, and place in the oven immediately.

TO WHITEN THE COMPLEXION.—To wash your face in buttermilk every night before going to bed, is said to be an excellent cosmetic for the skin.

BLACK CURRANTS make an excellent preserve, good for colds and sore throat. They do not take much sugar, and will keep perfectly.



New Advertisements this Month.

Apple Trees—John C. Teas, Raysville, Ind.
 Iona Vines—C. W. Grant, Iona, near Peekskill, N. Y.
 How to Obtain Webster's New Pictorial Dictionary Free of Cost—P. Church & Co., New York.
 Pittsburgh Water Cure—Dr. Freese, Pittsburgh, Pa.
 \$100 per Month—S. Milliken, Lawrence, Mass.
 Delaware Grape Vines—R. B. Shaw, Trenton Falls, N. Y.
 Peach Trees—J. T. Sergeant & Co., Sand Brook, N. J.
 Grapes—D. S. Heffron, Utica, N. Y.
 Evergreen Fencing—A. J. McClane, Marion, N. Y.
 To Inventors—J. Fraser, Rochester, N. Y.
 Lop-eared Rabbits—C. N. Bement, Poughkeepsie, N. Y.
 Delaware Grape Vines—Geo. W. Campbell, Delaware, Ohio.
 Apple Trees—E. Boardman & Son, Rochester, N. Y.
 Peach Trees—Isaac Pullen, Hightstown, N. J.
 Bloomington Nursery—F. K. Phoenix, Bloomington, Illinois.
 Tree Seeds—Thos. Meehan, Germantown, Pa.
 Ashland Clover Hulling and Cleaning Machines—D. Whiting, Ashland, Ohio.
 The Country Gentleman—Luther Tucker & Son, Albany, N. Y.
 Fruit and Ornamental Trees—G. Zimmerman, Buffalo, N. Y.
 Illinois Lands for Sale—John S. Hayward, Hillsboro, Ills.
 Sewing Machines—Grover & Baker S. M. Co., New York
 Guano—John B. Sardy, New York.

THE GENESSEE FARMER FREE FOR THREE MONTHS.—To all who subscribe for the *Genesee Farmer* now for next year, we will send the last three numbers of this year *free of charge!* *Fifteen months for fifty cents!*

The Great Provincial Fair of Upper Canada.

THE Fifteenth Annual Fair of the Agricultural Association of Upper Canada was held at Hamilton, Sept. 18—21. It was one of the best arranged and most successful Fairs we have ever attended.

The exhibition of cattle was excellent. Short-horns were out in great numbers—FRED. W. STONE, GEO. MILLER, JOHN SNELL, and other celebrated breeders, showing many splendid animals. The Devons, too, were well represented. Of Ayrshires, with a few exceptions, the show was poor, and we did not see a good Hereford on the ground. The black, hornless Galloways were well represented. This hardy and valuable breed is being rapidly diffused through the Province.

The British breeds of sheep—Cotswolds, Leicesters, South Downs and Cheviots—were well represented. The show of Cotswolds and Leicesters was truly magnificent. FRED. W. STONE, of Moreton Lodge, Guelph, C. W., is justly celebrated as a successful breeder and importer of Cotswolds. He showed 40 Cotswolds that it would be difficult for any single breeder in England to beat. These sheep are attracting more and more attention in Canada. Their great size and mutton-producing qualities render them deservedly popular. There can be little doubt that they are the most profitable breed of mutton sheep we have. The Sweepstake for the "Best long-wooled ram of

any age or breed," was awarded to a Cotswold bred by Mr. STONE and owned by Geo. MILLER, of Markham.

There was a noble show of Leicesters; the splendid flocks of GEO. MILLER, of Markham, JOHN SNELL, of Edmonton, and many other celebrated breeders, being well represented. The Leicesters of Canada are a larger breed than those of England. We should judge that they have a dash of Cotswold or Teeswater blood in them. Be this as it may, the breed is well established, and they are a most useful class of sheep.

Mr. STONE showed some beautiful Sussex Downs; Mr. SPENCER, of Whitby, some fine Hampshire Downs; the latter is a larger breed than the Sussex, and is rapidly gaining favor. JAS. DICKSON, and many others, showed excellent South Downs. There was a good show of Cheviots. There were only a few pens of Merinos. Fine-wooled sheep receive but little attention in Canada.

There was a good show of pigs—the "improved Berkshires" predominating. From their appearance, we suppose the improvement has been effected by crossing with the Essex. There were very few Suffolks, and only a few pens of Yorkshire or other large breeds. One Lancashire sow, exhibited by G. E. CRESSWELL, of Harpurbay, attracted attention from her immense size. She measured 7 feet 7 inches in length, and 7 feet girth under the fore legs.

The show of agricultural implements was not as large as usual. The implements and machines of Canada have a substantial, English look. Iron harrows, long-handled plows, turnip drills, etc., reminded us of an English Fair ground. There were six or eight different kinds of turnip drills, for sowing one or two ridges at a time—indicating that the culture of root crops is greatly on the increase.

There was a fine show of fruits, and a most magnificent display of vegetables—the latter we have never seen equalled in the "States," and we question if it is often surpassed in any country.

But to us the most interesting feature of the Exhibition was *the wheat*.

For the "Best two bushels of Winter Wheat," there were 83 entries; for Spring Wheat, 84 entries. The "Canada Company" offer a standing prize of £25 for the best 25 bushels of winter wheat—the prize wheat to be given to the Company for distribution. For this prize there were 32 entries, or 800 bushels! Think of it, ye wheat growers of the "Genesee Country," and let us look to our laurels! We *could*, doubtless, make as good a display at our own State Fair, but certes, we never have. The judges were provided with an instrument for determining with accuracy and dispatch the weight per bushel, and they told us that not one of these samples weighed less than 63 lbs. per bushel, and the heaviest was 66½ lbs.! Like our own wheat, several of these samples bore the marks of having been stung with the midge, but the maggots had not been able to penetrate the grain to any depth, and had done little or no damage except to the appearance of the sample. Canadian farmers have just cause to be proud of their Exhibition. Each Annual Fair indicates rapid improvement, not only in stock, but in all agricultural and horticultural productions; and it may be safely asserted that the farmers of Canada West are second to none on this side of the Atlantic.

NOTES ON THE WEATHER FROM AUGUST 15TH TO SEPTEMBER 16TH, 1860.—While the first half of August had its mean temperature 2.7° below the average for 23 years, the average of the last half was very little above the mean. The mean of the month was 1.3° above the average, or 67.9° —the mean being, for 23 years, 66.6° . There has not been a really hot day in the month, the highest being on the noon of the 20th, and also of the 23d—only 86° . Two cool mornings were the 25th and 30th, at 52° . Last year August was near a degree higher.

The rain in the month is 2.5 inches, and has been abundant. The Genessee rose a foot or more in the last week. The rain in the eight past months is 16.62 inches, or to the end of August.

The average rain of the State is 24.9 inches a year, and not $5\frac{1}{2}$ inches, as a public return has stated. The greatest annual fall of rain is at New York, 46.3 inches, and the least at Lewiston, 22.2 inches. At Rochester, the annual mean rain is 31.8 inches, and at Ogdensburg is 24.6 inches.

Limited sections in Maine, Rhode Island, Virginia, Kentucky, Louisiana, Texas and Kansas, have suffered by drouth, and severely at the South-west; but generally the productions of the earth have been more than plenteous.

Peaches abound in this vicinity, of the finest quality, and great quantities are sent into Canada and to the East. Apples, pears, plums, etc., without measure. All nature pours forth from her rich store-house.

This has been a very pleasant month for business, and all nature in the finest dress for the season.

Severe storms have occurred in some parts of the country—as at Watkins, the head of Seneca Lake, on the 18th; on the Mohawk River and north of it on the 21st, and on the same day a great rain at Boston, and on the Schuylkill and parts of New Jersey; and on the 24th a violent thunder storm, with hail and rail, at Toronto, C. W., and vicinity.

In England and France the summer has been cool, and the excessive rains have endangered the harvest of wheat. There was quite an alarm in England on the subject, and wheat had risen sixpence and ninepence a bushel. Three or four days of pleasant weather at the close of August had an exhilarating influence, and strengthened the hope of securing the fine crop.

This closes the notes on August.

September began, as the last month closed, with fine weather, which has continued to the close of the half month, inter-spersed with moderate adequate rains. Three of these have been called the expected *equinoctial* storm.

As a whole, this half of September has been rather cool— 2° above that of last year for the same time, but below the average for 23 years by 4° . For this average is 60° , while that for those years is 64.1° . Of course the average for last year was 7.4° below that of the 23 years. The coldest was on the 10th, being 42° at 7 A. M. A great change of weather at New York.

The frost on Sept. 2d and 3d wrought little damage, though up the Genessee a few miles buckwheat was injured, and some other vegetables. On the 10th, the frost was greater, corn being touched in some places. Some corn has been cut up by the roots because it was advanced

enough, and some that it might be ripened the more by standing in bunches on the ground.

The last telegram from Halifax announces fine weather in the beginning of September for the harvest in the South of England.

The productions of the earth have rapidly matured. Peaches have continued in abundance—many varieties rather earlier than usual—as well as of apples pears and plums. Of peaches, the exportation has been great to the East and North; and a week since, 60 tons of peaches were sent from this city in one day, and on every day a great amount. The late varieties are not so abundant. Of apples the demand will be less, because the crop is so great over New England.

Sept. 6—A fine aurora borealis through the evening, and very splendid pillars, and coruscations, over the whole canopy, and of different colors, wide over the country, from 11 to midnight. It is not clear that the aurora has any effect on the weather, or indicates change or rain. It often occurs at the clearing up of a storm. In high latitudes, it is too common or continuous to be an index of the weather.

AGRICULTURAL PAPERS AS PREMIUMS.—The President of the Bainbridge (N. Y.) Agricultural Society writes us as follows:

"I mailed you some time since a show-bill of the Fourth Annual Fair of the Bainbridge Agricultural Society. You will notice by that, that instead of the smaller cash premiums, we have tried the experiment of substituting the valuable monthly agricultural papers of this State. This is a perfect success, although we tried but in a small way. While paying the premiums, we asked the exhibitors if they would prefer the money, or the paper awarded. All said, promptly, "Send the paper—it is paid for, and we want it." I would suggest that this project be more fully tested in other Societies. It will increase the circulation of your papers, and throw them often into families where they are not known, and afterward they will not readily consent to be without them. The coming of this monthly visitor will, by association, remind them of the last fair, and the excitement and pleasure of meeting their friends and neighbors in friendly rivalry upon that annual holiday; and that to stand at the head of "the lists" and lead the van, they must use every opportunity to lay in that store of knowledge which shall make them "masters" of that first and highest calling ever followed by man—a tiller of the soil."

CASH PRIZES! CASH PRIZES! CASH PRIZES!—Our Prize List for 1861 will be found on the last page. Why will not our friends compete for these prizes? They are worth having. We offer them, and *pay* them in all cases; and yet few of our agents ever make the least effort to obtain them. We hope they will do better this year. We are anxious to compensate all, as far as possible, who aid us in extending the circulation and usefulness of the *Genessee Farmer*. NOW is the time to compete for these Prizes. It will be seen that we send the October, November and December numbers of this year *free* to all who send us fifty cents at this time for the volume for 1861! This gives our agents and friends a good opportunity to introduce the paper among those who do not now take it.

PRIZE ESSAYS.—We design offering a List of Subjects for Prize Essays in the next number of the *Farmer*. If there are any subjects on which our readers desire information, we should be glad if they would name them.

THE WEATHER AND THE CROPS IN ENGLAND.—The reports in regard to the crops in England are somewhat conflicting. In some sections they are reported better than had been anticipated; yet, on the whole, there can be no doubt that the harvest will fall far below an average. There is no part of Europe where the wheat crop is subjected to so low a summer temperature as in the British Isles—from 50° to 60°; while in Lombardy, where wheat grows in the greatest perfection, it is 73°, and in Sicily, “the granary of ancient Rome,” it is 77°. According to WHATELEY’S “Climate of the British Islands in its Effect on Cultivation,” the mean summer temperature for 65 years up to 1886 was 61°; and Mr. W. shows that whenever the average summer temperature falls two or three degrees below the average, the harvests are very deficient. Thus in 1775, with a summer temperature 1.2° above the average, there was a “plentiful harvest;” in 1779, when it was 2.3° above, the harvest was “one-fourth above the medium;” whereas in 1789, 1791, 1792, 1795, 1799, 1809, 1810, 1811, 1812 and 1816, when the temperature was from 0.5° to 4.8° below, the crops were very inferior—many of them famine years, in which the “poor perished.”

All the warm, dry seasons, gave good wheat crops. Thus in 1818, the hottest and driest season of the series, when the summer temperature was 4.3° above the average, the wheat, though short in the straw, yielded admirably; while hay was so scarce that it was imported from New York, and barley was sent from Constantinople.

From this it appears that the average summer temperature of the British Isles is within two or three degrees of the minimum temperature required for the perfection of wheat. A correspondent of the *Agricultural Gazette* states that the average temperature in Lincolnshire the present summer was 55 $\frac{1}{4}$ °, “No less than 6 $\frac{1}{4}$ ° below the mean summer heat of a number of years, and 2 $\frac{3}{8}$ ° below the minimum necessary for the ripening of wheat.” From this he thinks the deficiency of the present harvest will be very great.

FAIR OF THE U. S. AGRICULTURAL SOCIETY.—The Eighth Annual Meeting of the United States Agricultural Society was held in Cincinnati, Sept. 13–16. A gentleman who has just returned informs us that it “didn’t amount to much.” The arrangements seem to have been imperfect, and the show itself, as a whole, rather inferior—by no means equal to that at Chicago last year. There were some fine horses on the grounds, including such celebrities as the old mare *Fashion*, *Bonnie Scotland*—purchased in England for \$10,000, after having won the Doncaster stakes—and *Stockbridge Chief*, the Black Hawk stallion that took the \$1,000 prize at the St. Louis Fair last year.

Of cattle, there were about 200 entries. McHENRY, of Maryland, showed eleven head of superior Ayrshires, and MERRYMAN, of the same State, exhibited ten good Herefords, purchased, we believe, principally from W. H. SOTHAM, of this State. BRUTUS J. CLAY, and other Kentucky breeders, showed some excellent Durhams.

A BIG BAKERS’ DOZEN.—Fifteen months in the year. All who send us fifty cents at this time for the *Genesee Farmer* for 1861, will get the paper for fifteen months, commencing with the present number. Reader, tell your neighbors of this most liberal offer.

THE CROPS.—Several farmers in this section and Canada West inform us that their wheat, on thrashing, does not turn out as well as they expected. Spring barley is a poor crop in this section, but the winter barley turns out well. There is little barley yet offered in this market, and prices will probably rule high. Oats are splendid—never better. Corn, about an average; it has been too cold for it. A good portion of it is already cut up. There are some complaints of the potato disease, but the crop, on the whole, is large. Fruit of all kinds is abundant, and prices low.

THE COUNTRY GENTLEMAN.—If any of our readers want a good weekly agricultural paper, we would direct their attention to the advertisement of the *Country Gentleman*, to be found in another column.

We think the *Country Gentleman* decidedly the best weekly agricultural and horticultural journal published in America.

SWANS IN THE N. Y. CENTRAL PARK.—The Vintners’ Society of London have presented the city of New York fifty swans for the Central Park. One of them died on the passage. The city of Hamburg is about to send nine swans to supply the place of those which died so suddenly last summer. The London swans seem younger and more vigorous than those from Hamburg.

AGENTS.—The large circulation of the *Genesee Farmer* is mainly due to our friends who act as voluntary agents for the paper. Will not some of our readers in places where we have no agent oblige us by taking subscriptions to the *Farmer* and *Rural Annual*? We will cheerfully send them show-bills, specimen copies, etc. Now is the time to commence. Our offer to send the three last months of the year *free* to all who send fifty cents for next year at this time, affords a most favorable opportunity to introduce the paper into sections where it has now few subscribers.

Inquiries and Answers.

RYE.—(H. A.) Winter rye can be sown both earlier and later than winter wheat. It is not yet too late to sow it. It will do well after corn. It will flourish on heavier soils, but it is more profitably raised on land that is too light and sandy for wheat. From a bushel and a half to two bushels is the usual quantity of seed. The seed does not germinate as soon as wheat, and if the land is wet and cold it is apt to rot.

LEACHED ASHES.—Are ashes, leached at the soap factories, valuable for manure, particularly to compost with muck or swamp mud? How does their value compare with unleached for that purpose, and of what do they chiefly consist?—H. VAN RENFUCAN, *Tolen, Ohio.*

We do not think they would be of any particular benefit to the muck. They are a useful manure applied alone, especially on light, sandy soil.

WHAT IS THE ORIGIN OF KING PHILIP AND DUTTON CORN? (A. R.) We believe the former was obtained from the Indians; the *Dutton* was originated by SALMON DUTTON, of Cavendish, Vt., over fifty years ago.

PRESERVING FRUIT.—(C. R.) Send fifteen cents to E. DARROW & Bro., of this city, and get a copy of CULVER’S *Fruit Preservers’ Manual*.

A BROKEN-WINDED HORSE.—(H. H.) There is no absolute cure for this disease; but the horse can be greatly relieved by careful feeding. He should have concentrated food—more oats and less hay. Bran mashes sufficient to gently relax the bowels should be given freely. Never work him on a full stomach. Water sparingly in the morning and during the day, but let him have all he will drink in the evening after the day's work is done. Corn leaves are said to be good food for such a horse. Carrots we know to be excellent. We have little faith in medicine, though judiciously used it might afford some relief.

TENDING A THRASHING MACHINE.—(G. W.) Take a fine sponge and fit it to your nose and mouth. Moisten it with water, and let a string pass from each side of it to the back part of the head, and tie them together. This will keep the dust from your lungs, and you will find it a great relief.

CAN COWS HOLD BACK THEIR MILK?—In the May number of the *Farmer*, page 146, I see an extract from Dr. DADD's communication in the *Stock Journal*, stating that cows can not hold back their milk. This is contrary to the traditions of our fathers. I do not wish to dispute the authority, for it seems to me good; yet I do not feel quite disposed to discard my early teachings without a little more light on the subject. Will Dr. DADD, or some one, inform me how we shall account for the fact that a cow, used to being *stopped* while milking, will, many times, refuse to yield her milk until she gets her *mess*? Why a cow with a young calf often refuses her milk until the calf gets hold of one of the teats?—in short, why does a calf "*bunt*?" These things are actual occurrences known to every farmer; and most of us have accounted for them, believing that some cows acquire the control over the milk, to hold it back at pleasure.—E. F. BARROWS, *Sheboygan Falls, Wis.*

POTATO BUGS.—I wish to ask you or your correspondents to answer through your paper what they know about them, and the remedy. The bug is brown on the under part; on the back it is striped with brown and orange. It is from one-half to five-eighths of an inch long. They appeared the latter part of June, in such numbers as to eat nearly all the leaves off the potatoes, and leave the bare stems standing. I have never before seen these bugs, nor have I seen any account of them in the papers. The potatoes were of the *Neshanock* variety, planted in March on a light, gravelly soil.—A SUBSCRIBER, *Ky.*

JAPAN APPLE-PIE MELON.—I should like an article from some of your readers on the best method of cultivating the Japan Apple-Pie Melon.—W. G., *Ross, C. W.*

FATTENING POULTRY.—I would like to know the best method of fattening poultry—especially fowls and turkeys.—G. W. DALLY, *Lawrence Co., Pa.*

RATS.—Will some of your correspondents tell me the best method of keeping rats out of the corn-crib or granary?—D. N. D.

Books, Pamphlets, &c., Received.

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 16, 17, 18. New York: D. APPLETON & Co. Price 15 cents per number.

CASSELL'S POPULAR NATURAL HISTORY. Profusely illustrated with Splendid Engravings and Tinted Plates. Published in parts on the 1st and 15th of each month. Nos. 6 and 7. Price 15 cents. New York: CASSELL, PETER & GALPIN, 37 Park Row.

APPLETON'S COMPANION HANDBOOK OF TRAVEL: Containing a full description of the principal Cities, Towns and places of interest through the United States and the Canadas. With colored maps. New York: D. APPLETON & Co. Price 50 cents.

LIFE OF WM. T. PORTER. By FRANCIS BLINLEY. New York: D. APPLETON & Co. Price \$1.

THE NEW AMERICAN CYCLOPEDIA: A popular Dictionary of popular Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Vol. 10. Jer.—Mac. New York: D. APPLETON & Co. 1860. L. HALL & Bros., agents for Rochester and vicinity. Price \$3 per volume.

WESTMINSTER REVIEW—American edition. Vol. 51, No. 1, for July, 1860. New York: L. SCOTT & Co. Price \$3.

The following books are for sale by STEELE, AVERY, & Co., of this city.

ITALY IN TRANSITION. Public Scenes and Private Opinions in the Spring of 1860. Illustrated by Official Documents. By WILLIAM ARTHUR, A. M. New York: HARPER & Bros. Price \$1.

THE WOMAN IN WHITE. A Novel. By WILKIE COLLINS, author of the "Queen of Hearts," "Antonina," etc. Illustrated by JOHN McLENNAN. New York: HARPER & Bros. Price \$1.

THE SCHOOL AND FAMILY PRIMARY; Introductory to the Series of School and Family Readers. By MARCIUS WILLSON. New York: HARPER & Bros. Price 15 cents.

STUDIES IN ANIMAL LIFE. By GEO. HENRY LEWIS, author of "Life of Goethe," "The Physiology of Common Life," etc., etc. New York: HARPER & Bros. Price 40 cents.

COURSE OF ANCIENT GEOGRAPHY; Arranged with Special Reference to Convenience of Recitation. By H. J. SCHMIDT, D. D. New York: D. APPLETON & Co. Price \$1.

FIRST, SECOND, THIRD, AND FOURTH READERS, of the School and Family Series. By MARCIUS WILLSON. New York: HARPER & Bros. Price \$1.66 the set.

A NEW, PRACTICAL AND EASY METHOD of Learning the Spanish Language, after the System of F. AHN. New York: D. APPLETON & Co. Price 75 cents.

VIRGIL'S ÆNEID; with Explanatory Notes. By HENRY S. FRIEZE, Professor of Latin in the State University of Michigan. New York: D. APPLETON & Co. Price \$1.

ROSA; or, The Parisian Girl. From the French of Madame de PRESSENSE, by Mrs. J. C. FLETCHER. New York: HARPER & Bros. Price 60 cents.

A GREEK GRAMMAR, for Schools and Colleges. By JAMES HADLEY, Professor in Yale College. New York: D. APPLETON & Co. Price \$1.25.

REMINISCENCES OF AN OFFICER OF ZOUAVES, Translated from the French. New York: D. APPLETON & Co. \$1.

The following are for sale by D. M. DEWEY, of this city:

BLACKWOOD'S MAGAZINE. New York: LEONARD, SCOTT & Co. Price \$3 per annum.

EDINBURGH REVIEW. American Edition. New York: LEONARD, SCOTT & Co. Price \$3 a year.

LONDON QUARTERLY REVIEW. American Edition. New York: LEONARD, SCOTT & Co. Price \$3 a year.

THE NORTH BRITISH REVIEW. American Edition. New York: LEONARD, SCOTT & Co. Price \$3 a year.

The following is for sale by E. R. HALL & Bros., of this city:

HOME AS FOUND; Sequel to "Homeward Bound." By J. FENIMORE COOPER. Illustrated with Drawings by F. O. T. DABNEY. New York: W. A. TOWNSEND & Co. Price \$1.50.

The following is for sale by ADAMS & DABNEY, of this city.

THE LIFE OF STEPHEN A. DOUGLAS. By JAMES W. SHEANAN. New York: HARPER & Bros. Price \$.

The following are for sale by DARROW & BRO., of this city:

THE FRUIT PRESERVER'S MANUAL: Reviewing the different Theories, and describing the Best Methods of Preserving Green Corn and Peas by drying, and other Fruits and Berries by enclosing in Jars or Cans. By S. CULVER. Rochester: E. DARROW & Bros. Price 15 cents.

THE YOUNG FARMER'S MANUAL; Detailing the Manipulations of the Farm in a plain and intelligible manner. Embracing also The Young Farmer's Workshop. By S. EDWARDS TODD. New York: C. M. SAXTON & Co. Price \$1.25.

THE GUILLOTINE; or The Death of Morgan. By ALEXANDEE DUMAS. New York: E. D. LOUG & Co. Price 50 cents.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

Special Notices.

THE GREAT INVENTION.—

The poor woman's riches,
The rich woman's bliss.

In the war which is going on among the sewing machines, there is something comforting in the fact that no one is killed, and the community in general derive a permanent benefit. As in the political world, where a great variety of opinion prevails, and each party has its favorite leader, so among the sewing machines, we find a great variety of opinion, and each one loud in their praises of the one they think the best. Unlike political opinions, however, we regard all the sewing machines as a blessing. From the greatest to the least, from the splendid cabinet machine of GROVER & BAKER down to the smallest machine invented, we find a labor-saving benefit to all the families in the land. In saying so, however, we must not be considered as recommending a cheap article, as to our sorrow, we have invariably found that a cheap article is in the end the dearest.

We speak from experience when we say that, after having tried all the principal sewing machines, we must accord to that of GROVER & BAKER the pre-eminence. Those indispensable features of sewing, strength, uniformity and elasticity, all of which are brought out in this incomparable invention, make it the first sewing machine in the country. Others have their good points, but this combines all, and possesses every characteristic necessary to make it most desirable. We know one lady, whose appreciation of this machine, after a trial of years, is such that she would part with almost every other article of household furniture before she would allow it to be taken. She understands the different varieties of sewing machines, and has tested the merits of all; but GROVER & BAKER'S noiseless machine, with its firm uniform stitch, surpasses, in her estimation, all others. In that lady's opinion we have the most unlimited confidence, her taste and judgment being excelled by none. Nor has her judgment been formed hastily. She has, with a view of thoroughly testing the merits of the different sewing machines, given the most of them a fair trial, and the result is as above stated.

The Grover and Baker Company, from being one of the oldest and most successful of the originators and directors of the business, and having associated with it men of the greatest artistic skill, possesses facilities above that of others in making such improvements as are calculated to bring the sewing machine to perfection. In their magnificent establishment on Broadway, they have in the finest taste fitted up a large drawing-room, where a great number of ladies may be found every day, either learning or perfecting themselves in the art of sewing; and we would say to our lady friends who have hitherto remained skeptical in regard to this great invention of the age, an hour could not be more profitably spent than at this establishment.—*New York Christian Advocate and Journal.*

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
ROCHESTER, N. Y., SEPTEMBER 24, 1860.

ALTHOUGH the Wheat crop of this country is acknowledged to be considerably above the average, the gloomy accounts of the weather in England and Western Europe, and the certainty that the harvest there would be deficient in quantity and more particularly in quality, caused the price of wheat in this country to advance rapidly during the past few weeks. The last advices from England, however, report finer weather and a somewhat more favorable prospect, and prices had receded. This report has affected our markets, and prices have declined. They are still, however, from 20 to 25 per cent. higher than at this time last year. With a large harvest, this indicates an unusual demand for breadstuffs abroad, real or assumed. How long it will continue, it is impossible to predict. We can not think that a few fine days in England should have such depressing effect on prices in this country. Our markets fluctuate unreasonably. Prices may have advanced too suddenly, and the present depression may be the natural reaction. There is nothing in the English reports to justify it. The *London Mark Lane Express* of Sept. 3d says:—"The weather of the past week having much improved, the crops everywhere exhibit its beneficial influence. The process of ripening has advanced beyond late calculations; and but it will take another week before harvest operations will generally commence. Let us now hope that there will be a long cessation from rain, and that the farmer will finally reap the fruit of his toil, and the nation be saved from its late imminent danger. The change in the weather in France, as well as the temporary abolition of the slid-

ing-scale, has brought about a lower range of prices there. Northern Europe, however, has generally been rising; high-mixed Wheat at Danzig having once reached over \$2.10 per bushel, free on board, though more moderate prices have since been quoted. English and French advices were also affecting the markets of Southern Europe, where the crops were gathered, and the prices at Odessa have risen to 3c to 6c per bushel. But the last advices from New York show sluggish markets for Flour, and a dullness and irregularity in Wheat prices; all accounts confirming the previous favorable reports as to abundance. There can, still, be no doubt that the English advices of the 27th ult. will produce some excitement both in Canada and the United States. Monday's Wheat market in London opened on a liberal foreign and small home supply. The pouring rain of Saturday being considered very injurious and all the country advices coming higher, factors commenced by asking fully 18 cents per bushel more money; but the weather looking more favorable, in only a few instances 15 cents advance was paid—not more than 12 cents per bushel could be eventually relied on. On Friday, with much improved weather, there was a great stagnation of business generally. Very little English was showing; but to sell foreign freely it would have been necessary to concede fully 3 cents per bushel."

ROCHESTER MARKET.—Sept. 24.

LOUR—Market dull, and a tendency to drop is apparent, except for best brands made from white wheat. Extra, \$5 75@ \$7; common \$5@ \$5.75.

GRAIN—Wheat market flat. Best white \$1 35@ \$1.35; do red, \$1.06@ \$1.14; Mediterranean, about \$1.12@ \$1.14 for fine grain. Corn has advanced and holders firm at 55@ 57c. Barley, 55@ 60c. Oats steady at 27@ 28c. Rye is worth 60c.

PROVISIONS—Mess Pork, \$20@ \$21 per bbl. Butter and eggs have advanced—the former is worth about 15c for best roll. Eggs are scarce and bring 12c per dozen. Pork is higher and the demand fair. There is no Poultry except chickens in market—they are worth 10c per lb. Lard, 13c@ 14c. Hams—smoked, 11c@ 12c. Shoulders 8c@ 9c. Beef, \$3@ \$5 per cwt. Potatoes, 25@ 42c per bushel. Cheese, 7c@ 10c per lb.

WOOL—Business is slack, with no operations.

SEEDS—Timothy, \$2 75@ \$3.25.

HIDES—Slaughter, 5c per lb. Calf skins, 9@ 12c. Sheep pelts, 37½@ 75c each.

NEW YORK MARKET.—Sept. 24.

LOUR—Market a shade firmer for common and medium grades, with more doing for export and home trade. \$5.00@ 5.12½ for superfine State; \$5.30@ \$5.45 for extra do.; \$5.00@ \$5.15 for superfine Western; \$5.30@ \$5.60 for common to medium extra do.; \$5.60@ \$5.70 for extra round hoop Ohio. Canada \$5.45@ \$7.50 for common to choice extra.

GRAIN—Wheat a shade lower, with a fair demand for export, chiefly to complete orders and freight engagements. Milwaukee club, \$1.20@ \$1.21; Chicago spring \$1.21@ \$1.23 for good to choice No. 1; No. 2 do. at \$1.16; Winter red Western, \$1.26@ \$1.29; white Indiana, \$1.32; white Michigan \$1.37½@ \$1.40; white Kentucky, \$1.40@ \$1.42½; unsound red State, \$1.20; Iowa, \$1.25. Rye steady, at a fair demand at 75c@ 80c. Barley scarce and firm—fair Canadian, 90c. Corn rather heavy—Western mixed, 66½@ 67c afloat, 69c in store. Oats firmer and more doing at 37@ 40c for Western, Canadian and State.

PROVISIONS—Pork quiet and firm at \$19.25@ \$19.37 for new Mess; \$18.55@ \$19 for old do.; \$19 for thin do.; \$16.50@ \$16.75 for Western prime do.; \$20.50 for clear; \$14@ \$14.25 for new prime, and \$13.25 for old do. Lard is firm and more active at 12½@ 13½c. Butter steady at 12½c@ 16c for Ohio, and \$16@ 21 for State. Cheese steady at 9@ 11½c.

HAY—Prices firm at 70@ 80c per cwt.

SEEDS—A good demand prevails for Clover seeds, and prices are steady at 9½@ 9¾c. Timothy seed less plenty and firm at \$2 37½@ \$2.50. Rough Flax seed in fair request at \$1.55@ \$1.60. Cotton seed scarce and in demand. Red top \$2.50@ \$2.75 per bushel.

WOOL—Prices firm. Native fleece, 40@ 60c, as to quality. Texas, 14@ 26c for common to fine unwashed, and 30@ 36c for washed; pulled, 30@ 45c for lambs and super extra.

PHILADELPHIA MARKET.—Sept. 20.

LOUR—Market steady—Superfine at \$5.75.

GRAIN—Little doing in Wheat, and prices lower; sales of prime red, \$1.25@ \$1.33; fair, \$1.25@ \$1.30; inferior, \$1.10@ \$1.15; White, \$1.35@ \$1.45. Rye wanted at 80c; Delaware is worth 77c. Yellow Corn is worth 75c; Southern white, 73. Prime Southern Oats, 36c; Pennsylvania, 37c. Barley quiet at 95c.

SEEDS—Prime Clover seed is wanted at \$5.75 per bushel. Timothy sold at \$2.50@ \$2.87½. Flax seed is worth \$1.00@ \$1.63.

WOOL—45@ 60c.

PROVISIONS—Mess Pork is worth \$20 per bbl. City packed Mess Beef \$12@ \$14. Hams range at 12@ 14c for plain and fancy cured. Lard, 13½c. Butter—N. Y. Irkin, 10@ 12c, and roll at 14c. Cheese steady at 10@ 10½c. Eggs, 13½@ 14c.

CHICAGO MARKET.—Sept. 21.

FLOUR—Dull, with sales at \$4.50@4.55 for medium to choice spring extra.

GRAIN—Wheat—Rejected spring, 75c; rejected red, 50c; Iowa club, 57½c on track; No. 1 spring at 57c; North-western at 52c; No. 2 spring early, 52@52½c. Corn—No. 1 in lots at 38c; No. 2 in lots early at 37c. Oats—21@21½c. Rye 50c in store. Barley dull, with sales at 40@45.

PROVISIONS—Mess pork firm at \$19.50. Lard, 11½c for prime. Butter, 6@10½c for common firkin; 11c for good, and 12@14c for dairy. Eggs in good demand at 10c@11c per doz. Cheese—Western Reserve at 10@10½c; Hamburg, 10½@11c; good Western, 8@9c. Lard nominal at 11½@12c. Potatoes, 20@25c per bushel.

SEEDS—Timothy seed in good demand and firm, \$1.90@2.10. HIDES—Green salted, 7@7½c. Dry Flint prime, 14c; dry salt, 11@11½c.

CATTLE—Beef cattle—Market quiet at \$2.75@3.25 for good to prime. Hogs, \$5.50@5.75 per cwt.; stock hogs at \$5.25. Sheep wanted, if good, at \$3@3.50.

TORONTO MARKET.—Sept. 20.

FLOUR—There is little doing in Flour: Superfine, \$5.25; fancy, \$5.75; extra, \$5.75@5.90 per barrel. GRAIN—Fall Wheat—The tendency in prices is downwards; a decline of about 10 cents per bushel on Wheat is noted. There is, however, a great anxiety manifested to secure Wheat, and with the largely increased receipts the market has stood well. The prices range from \$1.25@1.30 for common to good, and from \$1.30@1.35 for good to prime. The average price was not less than \$.27½ per bushel. Spring Wheat—\$1.50@1.10 was the range, the current rate being \$1.05 per bushel. Barley continues to maintain its importance at from 70@74c. Peas in limited supply at 61@67c per bushel. Oats sell steadily at 29@30c per bush. Rye required for local use at 65c per bushel.

PROVISIONS—Potatoes—Market overstocked and of very good quality; sales at 20@25c per bushel. Butter 15@17c; No. 1 tub butter is worth 13@14c; No. 2, 10@12c per lb. Eggs 10@12c per doz. Cheese—American is worth from 11@12c for the best; 9@10c for inferior to common.

CATTLE—The supply of cattle was large at \$5 for the first-class; \$4 to \$4.50 common, and 3@3.50 per cwt. inferior. Sheep in demand, \$3.50@4.50 each. Lambs, \$2@2.50 each. Calves, \$4@6 each.

HIDES—Beef Hides \$5.50 per cwt. Sheep and Lamb skins, 75c each. Calf skins 1½c per lb.

HAY—There is a fair quantity of hay in market, and sells at \$12@16 per ton.

CINCINNATI MARKET.—Sept. 19

FLOUR—Market dull; sales at \$4.75@4.90. GRAIN—Wheat has been extremely dull and unsettled, and prices nominal to a great extent. Prime red, \$1, and prime white, \$1 0. Corn in good demand, and prices have advanced to 50c in ear in bulk; shelled in bags at 55@57c. Oats, 31c. Rye, 65@68c. Barley in light supply, and prime advanced to 95c for prime tall, barley malt, \$1.05.

HAY—Prime Timothy, in bales, \$16; inferior grades, \$12@14. CATTLE—The supply of beef cattle is good, and rather in excess of demand. Ordinary, \$2@2.25; fair, \$2.50@2.75; good, \$3@3.25, and prime, \$3.50 per cwt. gross. Sheep from \$1.50@2.50 per head. Lambs, \$1.50@2.50 each. Hogs in good demand—\$5.50@5.75 for stop fed, and \$6@6.25 for corn fed, per cental gross.

LIVERPOOL MARKET.—August 31.

FLOUR—American barrel Flour was offered on rather lower terms—\$1.20@1.70; sour, \$6.70@6.94.

GRAIN—Genesee wheat, white, \$1.87@1.97; red do, \$1.70@1.80; Canadian white, \$1.84—\$1.95; do red, \$1.66@1.70. Indian corn difficult to sell—white, \$1.08@1.14; yellow, \$1.05@1.07; mixed, \$1.03@1.05. All per bush. of 60 lbs. Barley and Peas firm.

LONDON MARKET.—Sept. 3.

FLOUR—American sour, \$6.50@7.25; sweet, \$7.50@8.25. GRAIN—Wheat—American white, \$1.71@1.95; do red, \$1.65@1.95. Indian corn—white, \$1.15@1.22; yellow, \$1.12@1.19, per 60 lbs.

BRIGHTON CATTLE MARKET.—Sept. 20.

At market, 1400 Cows, 500 Stores, 6000 Sheep and Lambs, 670 Swine.

PRICES—Market Beef—Extra. — First quality, \$7.25@7.50; Second, \$6@6.75; Third, \$4.50@5.00. Milch Cows—\$4@5.50; Common, \$19@20. Working Oxen—\$2—30—100. Veal Calves—\$3.00@4.00. Yearlings—None. Two Years old—\$10@12. Three Years old—\$14@16. Hides—6c@6½c per lb. Calf Skins—10c@12c per lb. Tallow—6@6½c. Sheep and Lambs—\$1, \$1.25@1.50; extra, \$2.00, \$3.00@3.50. Pelts—\$0.50@1.75 Swine—Fat Hogs, none. Stores, wholesale, 6½c; retail, 7c. Spring Pigs, 7c; retail, 6½@8c.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

ADVERTISEMENT.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

GUANO.

We would call the attention of Guano Dealers, Planters, and Farmers, to the article which we have on hand and for sale at 40 PER CENT LESS THAN PERUVIAN GUANO,

which we claim to be superior to any Guano or fertilizer ever imported or manufactured in this country.

THIS GUANO IS IMPORTED BY

W. M. H. WEBB,

OF NEW YORK, FROM

Baker's and Jarvis' Islands, in the South Pacific Ocean.

Sold genuine and pure as imported, by the Cargo, or at retail by

JOHN B. SARDY, GENERAL AGENT,

No. 53 SOUTH STREET, CORNER OF WALL STREET,

NEW YORK.

It has been satisfactorily tested by many of our prominent Farmers, and analyzed by the most eminent and popular Agricultural Chemists, and found to contain (as will be seen by our circular) a large percentage of

BONE PHOSPHATE OF LIME AND PHOSPHORIC ACID, and other animal organic matter, yielding ammonia sufficient to produce immediate abundant crops, besides substantially enriching the soil. It can be freely used without danger of burning the seed or plant by coming in contact with it, as is the case with some other fertilizers; retaining a great degree of moisture, it causes the plant to grow in a healthy condition, and as experience has proved,

FREE OF INSECTS.

For orders in any quantity (which will be promptly attended to) or pamphlets containing full particulars of analyses and tests of farmers, apply as above. Oct.—1f

THE GROVER & BAKER
NOISELESS

Family Sewing Machine

It rapidly superseding all others for family use. The DOUBLE LOCK-STITCH formed by this Machine is found to be the only one which survives the wash-tub on bias seams, and therefore the only one permanently valuable for Family Sewing.

IT IS THE BEST IN THE WORLD

For families to use, who desire a stitch unrivalled for BEAUTY, ELASTICITY, and STRENGTH. This machine sews equally well on all fabrics—muslin, cotton, linen, woolen cloth, etc., from the finest SWISS MUSLIN up to the HEAVIEST BEAVER CLOTH or LEATHER. It finishes its own work, which is more durable than any fabric, runs at a quicker rate of speed than any other, is very simple in its construction, easily understood, and with proper management NEVER GETS OUT OF ORDER.

OFFICES.

495 Broadway, New York; 18 SUMNER Street, Boston; 730 Chestnut Street, Philadelphia; 151 Baltimore Street, Baltimore; 124 North Fourth Street, St. Louis; 53 West Fourth Street, Cincinnati; 171 Superior Street, Cleveland; 115 Lake Street, Chicago; and in all the principal cities and towns in the United States.

SEND FOR A CIRCULAR. Oct.—4f

ILLINOIS LANDS FOR SALE.

THE subscriber offers for sale, at low prices and on accommodating terms,

43,000 ACRES OF CHOICE FARMING LANDS,

situated in Central Illinois, in the Counties of Montgomery, Christian, Shelby, Macon, Moultrie, Piatt, Fayette and Clay.

Said lands were mostly selected and entered at an early day, and are very choice selections of Rolling Prairie or valuable Timbered Lands. Many of said lands are adjacent to Railroad Stations, and all are situated within convenient distances of completed Railroads.

Said lands are offered for sale in small parcels to actual settlers, on reasonable terms, or will be sold in large parcels, at wholesale rates, on very accommodating terms. The titles are perfect, and all conveyances will be made by warranty deed. Also,

400 Valuable Business and Residence Lots In Pana,

BEING AT INTERSECTION OF ILLINOIS CENTRAL AND TERRE HAUTE, ALTON AND ST. LOUIS RAILROAD.

Persons wishing to purchase any of the above named Lands or Lots, will please apply to the subscriber, by letter or otherwise, at Hillsboro', Montgomery county, Illinois.

Catalogues of said Lands will be forwarded to those who may request them.

Plats of said Lands and Lots may also be seen at the office of E. R. BULLENS, Land Agent, at Pana.

JOHN S. HAYWARD Hillsboro, Ills.

GODFREY ZIMMERMAN,
NEAR BUFFALO, N. Y.,

OFFERS for sale a large assortment of well-grown FRUIT TREES, consisting of

APPLES—Standard, and very stocky.

" Dwarf—Choice varieties only.

PEARS—Standard—2 to 4 years old; very thrifty.

" Dwarf—A large stock of 2 years old, of unsurpassed vigor.

CHEERRIES—Standard—Large and fine.

" Dwarf's—: fine young trees.

PLUME, PEACHES, ORANGES, and QUINCES.

CURRENTS—Leading varieties, including Cherry and White Grape.

GRAPES, Native and Foreign—The best new varieties, as well as the older ones, from one to two years growth. Also,

EVERGREENS and DECIDUOUS TREES and SHRUBS—Of the most hardy and desirable varieties.

Orders respectfully solicited; will be executed with care and dispatch

Catalogues sent to all applicants. Oct.—1†

NOW IS THE TIME TO SUBSCRIBE.

"**THE COUNTRY GENTLEMAN,**" writes the Hon. JOHN WENTWORTH in the Chicago Democrat, "is the name of, WITHOUT QUESTION, THE BEST AGRICULTURAL PAPER IN THE UNITED STATES."

"**THE COUNTRY GENTLEMAN** is published Weekly—16 pages quarto, and entered upon its Fifteenth Volume with 1860—inaugurating at that time several improvements—among them an enlarged page, larger type, and an increased amount of contents. "**THE COUNTRY GENTLEMAN** forms for the most complete and practical Weekly Journal for the Farmer and Country Resident published in this country. Terms: TWO DOLLARS A YEAR. Address, with remittance, or for Sample Numbers,

LUTHER TUCKER & SON, Albany, N. Y.

*L. T. & SON also publish **THE CULTIVATOR**, Monthly, at Fifty Cents per Annum, and **THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS**, Annually—price Twenty-Five Cents. The number of the latter for 1861 is just ready, and contains 150 Engravings. Samples of **THE COUNTRY GENTLEMAN** and **CULTIVATOR** will be sent gratis to all who enclose 25 cents for the ANNUAL REGISTER for 1861. Address as above. Oct.—2†

THE

Ashland Clover Hulling and Cleaning Machines!

THE BEST IN THE WORLD!

They have taken the First Premium at the World's Fair, Ohio, Pennsylvania and Michigan State Fairs, County Fairs, and wherever exhibited.

THESE Machines are warranted to hull and clean from 20 to 50 bushels of seed per day. They have been long tried and found to be the most reliable and durable. These machines, with all the improvements, are made only by the subscribers, who have on hand a large number for the season of 1861.

Send for a circular, and order early. Price from \$90 to \$100.

D. WHITING, Manufacturer and Proprietor, Ashland, Ohio.

Oct.—1†

TREE SEEDS.

MEEHAN'S New List is the fullest ever offered—over 800 kinds of Fruit and Tree Seeds.

SEEDLINGS, &c.—Over 200 kinds enumerated in *Wholesale List*, including Fruit Stocks, New Lawn Grass (*Spergula*), Rhubarb or Pie-plant, Sugar Maples, &c.

HYACINTHS and DUTCH BULBS—Also, Catalogues of other extensive departments.

T. HOS, MEEHAN, GERMANTOWN AND WISSAHICON NURSERIES, Germantown, Pa.

Oct.—2†

BLOOMINGTON NURSERY, Illinois.—FRUIT and ORNAMENTAL TREES, a large stock cheap for cash. *Apple*, 1 to 4 years, 1,000, \$25 to \$55. *Stocks*, 1 year, selected, 10,000, \$30. *Gooseberry*, Houghton, strong, 100, \$4. *Raspberry*, many sorts, 100, \$2 to \$5. *Strawberry*, Wilson's, Early Scarlet, Crimson Cone, Iowa, or Washington, and others, *Pave*, 100, \$1; 1,000, \$5. *Tulips*, 100, of 20 named sorts, Double and Single, \$4. *Root Grafts*, 10,000, \$50; &c., &c., as per List.

Cash orders in fall packed free. Oct.—2† F. K. PHOENIX.

100,000 PEACH TREES.

HIGHTSTOWN, N. J., NURSERIES.

ISAAC PULLEN, PROPRIETOR,

OFFERS for sale 100,000 Peach Trees of leading market varieties. Also a complete assortment of other Fruit Trees.

Catalogues supplied gratuitously on application. Address Oct.—2† ISAAC PULLEN, Hightstown, Mercer Co., N. J.

100,000 First-class Apple Trees.

FOR SALE to the trade at GREATLY REDUCED PRICES. Also, Cherry, Standard and Dwarf Pear, Peach and Plum Trees, Grapes, Currants, &c. Address

Oct.—2† E. BOARDMAN & SON, Monroe St. Nurseries, Rochester, N. Y.

True Delaware Grape Vines.

ONE YEAR OLD—Strong, well-rooted plants. \$1; two years, \$1.50 to \$2; extra large layers, with bearing wood, \$2 to \$3; smaller, good layers, \$1 to \$1.50. Very fine Logan Vines 1 and 2 years, \$1 to \$2. All other desirable varieties, new and old, at lowest rates. Send for a circular. GEO. W. CAMPBELL, Oct.—2† Delaware, Ohio.

LOP-EARED RABBITS.—A few pairs of young Lop-Eared Rabbits may be had by application to the subscriber. Also, **FANCY PIGEONS.**

Carriers, Fantails, Pouters, Rufflenecks and Tumblers. Prices from two to five dollars per pair. C. N. BEMENT, Oct.—1† Springside, Po'keepsie, N. Y.

TO INVENTORS.

J. FRASER, 24 Arcade, Rochester, N. Y., obtains PATENTS, both at home and in Europe, on unusually favorable terms. *Rejected applications*, and other extremely doubtful cases, will be guaranteed—that is, *no charge will be made without the patent is obtained.* Oct.—1†

EVERGREEN FENCING.

TWO NURSERYMEN and AMATEURS.—500,000 American Arbor Vita and Hemlock Spruce, from seed bed and Transplanted trees. Send for a catalogue. A. J. McCLANE, Oct.—1† Marion, Wayne Co., N. Y.

GRAPES! GRAPES!! GRAPES!!!

TWENTY varieties of the best hardy sorts, singly, by the dozen or hundred. Send stamp for priced descriptive catalogue. Oct.—2† D. S. HEFFRON, Utea, N. Y.

50,000 PEACH TREES,

BUDDED this season with the choicest fruit, and for sale at \$25 per thousand, by J. T. SERGEANT & CO., Oct.—1† Sand Brook, New Jersey.

DELAWARE GRAPE VINES—For \$1 each, Concord and Diamas for \$25 per hundred, and other varieties. Send for a catalogue. Address R. B. SHAW, Oct.—1† Trenton Falls, Oneida Co., N. Y.

100 PER MONTH—Can be made by any one with Stencil Tools. I sell the cheapest and best. Be sure and send for my circular, which fully explains the business. Address Oct., 1860.—5† JOHN MILLIKEN, Lawrence, Mass.

PITTSBURGH WATER CURE.—A first-class CURE, in its sixth year. Room for over 100 patients. Send for circular to Dr. FREASE, Pittsburgh, Pa. Oct.—4†

HOW TO OBTAIN WEBSTER'S NEW PICTORIAL DICTIONARY FREE OF COST!

THE Publishers of THE NEW YORK CHRONICLE offer to send a copy of WEBSTER'S NEW PICTORIAL DICTIONARY. Unabridged, containing 1,500 beautiful illustrated woodcuts, to any person who will send them the names of three new subscribers, with Six Dollars. The Dictionary is a large quarto of over 1,700 pages, sold at the bookstores for \$6.50. As the subscription price of the paper is two dollars a year, we thus substantially

OFFER TO GIVE AWAY

THE BEST DICTIONARY OF THE ENGLISH LANGUAGE, for a service readily rendered by any one living where a good religious journal is in demand—and who does not?

We do this to bring the CHRONICLE before as many as possible, experience having taught us that a year's reading will make it an indispensable visitor. It is an established axiom that every Baptist family should have a Baptist paper. To all such THE NEW YORK CHRONICLE commends itself as a Religious Family Journal, aiming to be always fresh and interesting, always reliable, always deprecating useless and tiresome controversies, while always upholding a primitive and pure faith in the large spirit of true Christian charity. A paper, in short, embracing a wide range of reading of current interest and of intrinsic value, suited to entertain and instruct every member of the family, from the grandparent of 70 to the child of 10, and handsomely printed in large and clear type.

To obtain the Dictionary, the Six Dollars must always be sent in advance, with the new names. Specimen copies of the CHRONICLE sent free to any address on application. Address P. CHURCH & CO., No. 41 Park Row, New York. Oct.—11

IONA VINES.

MY stock of Native Vines comprises all of the valuable varieties with which I am acquainted. The plants have been produced with great care, under the most favorable circumstances for healthy development, and surpass in excellence any that I have heretofore been able to offer.

For the Fall trade, only a limited supply of Union Village, Lenoir (Lincoln) Pauline, Elsingburg, Taylor (or Bullitt) and Allen's Hybrid is offered. Of best Delaware layers also, the supply is not large, but quality unequalled.

The stock from Delaware, single eyes grown both in house and open air, is large and fine. For vineyard planting some strong vines, grafted on Catawba and Isabella stock, are offered at low price—roots very strong.

Very large layers of Diana, Heribmont, and Concord, grown with especial care for immediate bearing. Good layers of Anna, Roger's Hybrid, 12 kinds; also, Clara, Cassidy, To Kalon, Rebecca, Miller's Louisa, Logan, Emily, Canby's August, Early Hudson, H. Prolific, Cuyahoga, &c.

A general assortment of Foreign varieties for vineries. Of Downing's Everbearing Mulberry, the supply is not large, and a great part of the trees already ordered. They are very vigorous, and the wood well grown and matured.

Wholesale list sent to the trade on application. Fourth edition of Descriptive Catalogue sent for two three-cent stamps. It is designed to be a full and comprehensive treatise on the management of the vine, giving such information as purchasers and growers are supposed to need. Particular directions are given for the preparation of the soil and planting, and the directions for training are illustrated by many carefully prepared engravings.

The descriptions of the varieties will be found accurate and trustworthy, being drawn from personal knowledge and very extensive observation. C. W. GRANT, Oct.—11 Ionia, near Peekskill, Westchester Co., N.Y.

50,000 APPLE TREES—Ready for Orchard planting. CHERRY, PEAR and PEACH TREES. GRAPES—new and old. GOOSEBERRIES, RASPBERRIES and CURRANTS.

10,000 NEW ROCHELLE BLACKBERRY.

5,000 LINNÆUS and VICTORIA RHUBARS.

100,000 EVERGREENS—American and European, mostly small and suitable for Nurseries, Belts, Screens, &c.

ORNAMENTAL TREES, FLOWERING SHRUBS, VINES, ROSES, GREEN HOUSE and HARDY PLANTS and BULBS. DOWNING'S EVERBEARING MULBERRY.

A large collection of Strawberries, including "WIZARD OF THE NORTH," the most magnificent berry ever raised—specimens having measured over nine inches around—and of good quality. Imported by B. Y. TEAS, Richmond, and for sale in America only by him and myself.

Fruit Trees propagated from Bearing Trees, and all warranted true. Wholesale and retail at lowest rates. Priced Lists on application. Address JOHN C. TEAS, Raysville, Henry Co., Indiana. Oct.—11

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Cotswold Sheep, Markhams P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price \$5 per pair. July—1y

Pomona Garden and Nursery.

CINNAMINSON, NEW JERSEY.

A LARGE COLLECTION of Fruit and Ornamental Trees Vines and Plants, among which are 50,000 PEACH TREES, branched low—suitable for a Southern climate.

A large and full supply of APPLES, PEARS, PLUMS, CHERRIES, NECTARINES and HARDY GRAPES.

20,000 APPLE SEEDLING STOCKS.

20,000 SILVER MAPLE SEEDLINGS.

20,000 ASPARAGUS ROOTS.

RHUBARB and CRANBERRY PLANTS in large quantities. Especial attention is given to the culture of SMALL FRUITS, and those which prove hardy and most profitable for market are extensively grown.

Having 25 acres planted with Strawberries, Raspberries and Blackberries, and a portion of each, being in full bearing, yielded as follows:

Strawberries..... \$600.00 per acre.

Raspberries..... 220.00 " "

Blackberries..... 530.00 " "

Plants reasonable. Descriptive Catalogues gratis.

Address WILLIAM PARRY, Cinnaminson, New Jersey.

Sept. 1860.—31.

EAST NEW LONDON NURSERIES.

A MOST splendid assortment of FRUIT AND ORNAMENTAL TREES, Shrubs, Plants, Grape Vines, Small Fruits, &c., &c. Full descriptive Catalogues free on receipt of stamp to pay postage.

1,500,000 CRANBERRY PLANTS,

Of the celebrated Cape Cod, Bell, and Cherry cultivated varieties, for sale at low prices.

Also—The Cranberry Culturist, containing directions for the successful culture of this estimable fruit. Sent to any applicant on receipt of 12 cents in stamps. Address W. H. SARR, East New London Nurseries, Sept.—21 New London, Ct.

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy.

REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weight right if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to JAMES G. DUDLEY, General Western Agent.

April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange, or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by JAMES G. DUDLEY, 93 Main street, Buffalo, N. Y. April, 1860.

Herring's Patent

FIRE AND BURGLAR-SAFE, SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by JAMES G. DUDLEY, Sole Agent, at 93 Main street, Buffalo, N. Y. April, 1860.

THE HYDROPULT,



AN invention for throwing water by hand-power, patented by W. T. VOSE. It is one of the most valuable inventions of the day.

THE HYDROPULT

will, by the power of one man, throw water at the rate of eight gallons per minute fifty feet high, with great force. It is the best article ever invented for

- EXTINGUISHING A FIRE.
- PROTECTING A ROOF FROM TAKING FIRE,
- WASHING WINDOWS,
- SPRINKLING PLANTS,
- WATERING GARDENS,
- CLEANING TREES FROM INSECTS,
- WETTING SIDEWALKS,
- SPRINKLING STREETS,
- WASHING CARRIAGES,
- CLEANING CISTERNS,
- EMPTYING WATER FROM SAIL-BOATS,
- WETTING SAILS,
- A SPRAY BATH, etc., etc.

This article should be owned by every householder. It does away with the necessity of a hydrant. It is a light, portable FORCE-PUMP, always ready, easily used, and will come in frequent use by every farmer, merchant, and mechanic in the community. Please call and examine the article at No. 41 Park row, Times Building, or address the

AMERICAN HYDROPULT CO.,
No. 41 Park row, New York.

Agents wanted throughout the United States to sell the Hydro-pult. Apply as above. Sept.—3t

WM. PATERSON'S

Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the Manufacturer's agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the maker's name, to whom orders sent with cash or satisfactory references, here or in New York, will be promptly executed.

The aforesaid article consists principally of charred bones, dissolved by sulphuric acid, with a large proportion of Peruvian Guano, and other important ingredients.

The largely increased sales for the last six years, with the unsolicited Reports of Agents, &c., attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently decidedly more profitable.

It has been the aim of the Manufacturer to make this Manure what it is avowed to be, and the public may rely assuredly that it will continue to be uniform in quality and profitable to the buyer.

Circulars, with particular instructions for use, will be sent by mail when requested, or on application to his agents.

May—6t WM. PATERSON.

SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood SUFFOLK Pigs, bred from their importations of 1852, 1853, 1859, and their descendants.

Address JOSIAH STICKNEY or } Boston, Mass.
July—5t ISAAC STICKNEY,

JOHN SNELL, Breeder of DURHAM and GALLOWAY CATTLE, LEICESTER, COTSWOLD and LINCOLN-SHIRE SHEEP, at Brampton, 20 miles west of Toronto, Sept.—2t* Edmonton Post Office, C. W.

SHORN-HORNS.—Several young Bulls and Heifers, SUFFOLK SWINE—all agers. For sale by T. L. HARISON, July—6t* Morley, St. Lawrence Co., N.Y.

40 SUPERIOR SPANISH MERINO BUCKS for sale by June—6t GEO. CAMPBELL, West Westminster, Vt.

ROCHESTER COMMERCIAL NURSERIES.

(Established 1830.)

H. E. HOOKER & Co., PROPRIETORS.

THE Grounds of these old established and responsible Nurseries now comprise 20 acres in a thorough state of cultivation. The stock is unsurpassed in extent and in health and beauty of growth. Long and valuable experience enables us to grow trees and plants in the best manner; and with an extensive collection of specimen and bearing trees, we are equally prompt in promising entire accuracy in labeling varieties. Our facilities for packing are now so complete that we can assure the safe transportation of packages to any part of the Union. We respectfully refer the public to our old patrons. The stock includes the following staple items: (For a more extended list see Catalogues, which will be sent free to all applicants.)

STANDARD FRUIT TREES FOR ORCHARDS.

Apples, Pears, Cherries, Peaches, Plums, Nectarines, Quinces, Dwarf Trees for Gardens.

Apples on Paradise Stocks, (bear immediately after setting.)
Pears on Quince Stocks, including handsome bearing Trees,
Cherries on Mahal b Stocks.

Small Fruits in Great Extent and Variety.

Currants, Strawberries, Gooseberries, Raspberries, Blackberries, &c. RHUBARB, ASPARAGUS, &c.

GRAPE VINES.

All the new Hardy Native sorts, including among others: Diana, Delaware, Concord, Hartford Prolific, Logan, Rebecca, To Kalon, Union Village, Northern Muscadine, King, and many others. Some of these we consider great acquisitions.

Isabella, Catawba and Clinton by the large quantity, and all the Foreign Varieties for house culture.

IN THE ORNAMENTAL DEPARTMENT

Will be found every variety of DECIDUOUS ORNAMENTAL TREES, EVERGREENS, ROSES, HEDGE PLANTS, &c.

Sept.—2t H. E. HOOKER & CO.,
Rochester, N. Y.

ROCHESTER CENTRAL NURSERIES.

THE Subscriber offers for sale, at the coming Fall trade and Spring of 1861, an unusually fine stock of all the popular varieties of Fruit Trees, consisting of

STANDARD AND DWARF APPLE TREES,
STANDARD AND DWARF PEAR TREES,
STANDARD AND DWARF CHERRY TREES.

PLUMS, PEACHES, APRICOTS, NECTARINES, QUINCES, &c., &c.

Currants—Including Cherry, Victoria, White Grape, Red Grape.
Raspberries—A fine stock of a number of varieties, but especially Brinkle's Orange, and the Autumnal-bearing Belle de Fontenay.

Gooseberries—Including English and American varieties.

Blackberries, Strawberries, &c.

Hardy Grapes—An unusually fine and extensive collection, including Concord, Crivelen, Diana, Delaware, Elizabeth, Rebecca, Union Village, Ontario, Hartford Prolific, and many other new sorts.

Foreign Grapes—A fine stock of Black Hamburg, Black Prince, Bowdoin Muscat, Child's Superb, Golden Chasselas, Muscat of Alexandria, Muscat of Hamburg, Rose Chasselas, Victoria Hamburg, White Sweetwater, Wilmot's, Black Hamburg, Zinfindal, &c., &c.

Roses—The finest varieties of Hybrid Perpetual and Moss Roses.

Ornamental Trees, Shrubs and Plants, Green-house Plants, &c., &c.

Parties wishing to purchase will find it to their advantage to examine my stock or correspond on the subject.

Catalogues will be sent to all applicants.
Address C. W. SEELYE,
Sept.—2t Rochester Central Nurseries, Rochester, N. Y.

PLUM TREES! PLUM TREES!!

400,000!

PARTICULAR attention is invited to our Plum Trees, of which we have a full supply, comprising the leading and most desirable varieties.

Plum Trees, 1 year Budded, 3 to 4 feet, \$20 per 100, \$100 per 1000.
" 2 " " 4 to 6 " 25 " 225 "
" 3 " " 6 to 7 " 30 " 270 "

40,000 PEAR TREES, STANDARD.

One year Budded, 3 to 4 feet, \$15 per 100, \$125 per 1,000.
Pear Trees must be removed this fall.

Address C. REAGLES & SON,
Sept.—2t Schenectady, N. Y.

FAIRBANKS'



STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.
Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular.

FAIRBANKS & CO.,
189 Broadway, New York.

S. W. STEVENS, Traveling Agent. Post Office address, Rochester, N. Y. June—6t

SMALL FRUITS.

WE have an immense stock of **SMALL FRUITS**, for sale during the Autumn of 1860 and Spring of 1861.

In addition to the more common sorts of **Native Grapes**, we have over 25,000 plants of such desirable sorts as *Delaware*, *Cornish*, *Diana*, *Rebecca*, *Hartford Prolific*, *Early Northern Muscadine*, *Logan*, and 20 other sorts—strong vines, for out-door culture. Of **Foreign Grapes**, we have 35 sorts, one to two years old, for Hot or Cold Vines, or for fruiting in pots.

An extensive stock of each of the common sorts of **Currants**, one or two years old, and fine one year old plants of *White Grape*, *Victoria*, *Cherry*, &c.

Fine and well grown **Gooseberry** plants, of the *American* and *Houghton Seedling*, which never mildew, as well as the best English sorts most suitable for this climate.

A great stock of **Raspberries**, such as *Red Antwerp* (Hudson River), *Yellow Antwerp*, *Orange*, *Franconia*, *Knevetts Giant*, &c., including several thousand of the Autumn-bearing kinds, *Belle de Fontenay*, *Murvel* of 4 Seasons, and others.

Strawberries—The most extensive stock of saleable plants and varieties—comprising over 60 sorts—in the Union.

Fine **Blackberries**—*New Rochelle* and *Dorchester*, in large quantities.

Also, **Figs**, **Filberts** and **Mulberries**. Orders from Nurserymen, Dealers, and others who may wish to buy in large quantities, as well as those who may favor us with the smallest orders, will be executed with care and dispatch.

CATALOGUES containing description, with prices at retail, and No. 4 Catalogue, offering plants in large quantities sent on application containing a postage stamp for each.

FROST & CO.,

Proprietors of the Genesee Valley Nurseries,

August, 1859.—3t

Rochester, N. Y.

A BROWER'S

Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. A. BROWER & CO., May—6t. 4 Reade Street, New York.

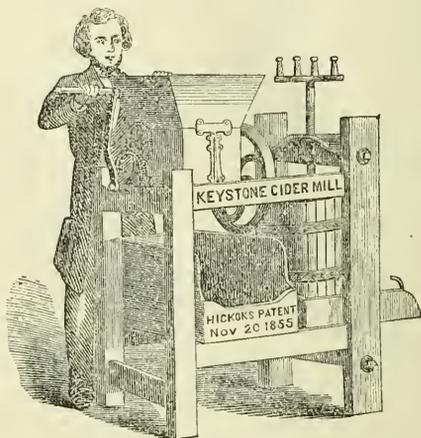
AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, Secretary. J. K. CHAPPELL, Agent. June—1f 64 Exchange Street, Rochester, N. Y.

FEMALE AGENTS WANTED.

\$3 A DAY.—Agents Wanted to travel for the MAMMOTH "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts. for a specimen copy, to MARIE LOUISE HANKINS & Co., Publishers, 132 Nassau st., New York City. Aug.—1f

ELECTRIC WEATHER INDICATORS—Manufactured by LEE & CO., Newark, New Jersey. Samples mailed, postpaid, on receipt of 50 cents. Sept.—2t

**HICKOK'S PATENT PORTABLE
Keystone Cider & Wine Mill.**



THIS admirable machine is now ready for the fruit harvest of 1860. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines.

It has no superior in the market, and is the only mill that will properly grind Grapes. Price \$40. For sale by all respectable dealers.

Address the manufacturer,
Aug.—3t

W. O. HICKOK,
Eagle Works, Harrisburgh, Pa.

**GENESEE VALLEY NURSERIES,
ROCHESTER, N. Y.**

FROST & CO., Proprietors of the *Genesee Valley Nurseries*, Rochester, N. Y., offer for sale for the Autumn of 1860 and Spring of 1861, one of the largest stocks of STANDARD AND DWARF FRUIT TREES, SMALL FRUITS, ORNAMENTAL TREES, SHRUBS, ROSES, PLANTS, &c., in the United States. The Grounds at the present time contain over

Three Hundred and Fifty Acres,

devoted entirely to the cultivation of Trees and Plants.

The stock is so extensive in its different departments, that they are enabled to furnish the entire orders of their correspondents of the different kinds, of the best quality, and at the lowest market prices. Trees and Plants are packed in such a manner that they will reach the more distant parts of the United States in perfect condition.

Orders from Nurserymen, Dealers and others, who may wish to purchase in large quantities, are executed with care and dispatch, as well as those who may favor them with the smallest orders.

CATALOGUES.

The following Catalogues contain full particulars of the stock in the different departments, and will be furnished gratis to all applicants who enclose a postage stamp for each:

- No. 1.—*Descriptive Catalogue of Fruits.*
- No. 2.—*Descriptive Catalogue of Ornamental Trees, Shrubs, &c., for the Autumn of 1860 and Spring of 1861.*
- No. 3.—*Catalogue of Dahlias, Verbenas, Green-House and Bedding Plants.*
- No. 4.—*Wholesale Catalogue or Trade List, for Nurserymen and Dealers, and others who may wish to buy in large quantities for Autumn of 1860.*
- No. 5.—*Catalogue of Flowering Bulbs.*

Address FROST & CO.,
Aug.—3t Genesee Valley Nurseries, Rochester, N. Y.

200,000 TWO YEARS OLD APPLE STOCKS for sale. No. 1, \$3.50 per 1,000.
100,000 APPLE GRAFTS, wound with waxed cloth, delivered next March—\$5 per 1,000.
50 bushels APPLE SEED in season—\$5 per bushel.
Sept.—2t* P. BO EN & Co., East Aurora, Erie Co., N. Y.

EVERYONE INTERESTED in Fruit culture, should have the RURAL ANNUAL and HORTICULTURAL DIRECTORY for 1860. Price 25 cents. The five volumes—1856-7-8-9 and '60—for \$1.00, sent prepaid by mail. Address JOSEPH HARRIS, Rochester, N. Y.

CHERRY SEEDS.—We have for sale a fine lot of fresh MAZZARD CHERRY PITS, in sand. Can be forwarded at any time. Address FROST & CO., Sept.—2t Genesee Valley Nurseries, Rochester, N. Y.

GROVER & BAKER'S

NOISELESS



FAMILY SEWING MACHINE.

THE undersigned, CLERGYMEN of vari-ous denominations, having purchased and used in our families "GROVER & BAKER'S CELEBRATED FAMILY SEWING MACHINE," take pleasure in recommending it as an instrument fully combining the essentials of a good machine. Its beautiful simplicity, ease of management, and the strength and elasticity of its stitch, unite to render it a machine unsurpassed by any in the market, and one which we feel confident will give satisfaction to all who may purchase and use it.

- | | |
|---|--------------------|
| Rev. W. P. STRICKLAND, | } New York. |
| Rev. N. VANSANT, | |
| Rev. E. B. YARD, | |
| Rev. E. P. RODGERS, D.D., | } Albany, N. Y. |
| Rev. W. B. SPRAGUE, D.D., | |
| Rev. J. N. CAMPBELL, D.D., | |
| Rev. CHARLES ANDERSON, | } Auburn, N. Y. |
| Rev. CHARLES HAWLEY, | |
| Rev. DANIEL H. TEMPLE, | |
| Rev. I. M. HOPKINS, | |
| Rev. WILLIAM HOSMER, | |
| Rev. O. H. TIFFANY, D.D., | } Baltimore, Md. |
| Rev. C. J. BOWEN, | |
| Rev. JOHN A. CROSS, | |
| Rev. JOHN MCCRON, D.D., | |
| Rev. W. T. D. CLEMM, | |
| Rev. R. C. GALBRAITH, Govanstown, Md. | |
| Rev. T. DAUGHERTY, Waynesboro, Pa. | |
| Rev. THOS. E. LOCKE, Westmoreland Co., Va. | |
| Rev. W. A. CRO-KEE, Norfolk, Va. | |
| Rev. J. F. LANNAN, Salem, Va. | |
| Rev. CHAS. HANKEL, D.D., Charleston, S. C. | |
| Rev. A. A. PORTER, Selma, Ala. | |
| Rev. JOSEPH J. TWISE, Speedwell, S. C. | |
| Rev. B. B. ROSS, Mobile, Ala. | |
| Rev. J. L. MICHAUX, Enfield, N. C. | |
| Rev. A. C. HARRIS, Henderson, N. C. | |
| Rev. HENRY A. RILEY, Montrose, Pa. | |
| Prof. W. D. WILSON, D.D., Geneva, N. Y. | |
| Rev. ELBERT SLINGERLAND, Scotia, N. Y. | |
| Prof. JOHN FOSTER, | } Schenect'y, |
| Rev. FRANCIS G. GRATZ, | |
| Rev. J. TURNBULL BACKUS, D.D., | |
| Rev. P. C. PRUGG, Xenia, O. | } N. Y. |
| Rev. B. W. CHIDLAW, A.M., Cincinnati, O. | |
| Rev. E. GRAND GIRAED, Ripley, O. | |
| Rev. A. BLAKE, | } Gambier, O. |
| Rev. E. C. BENSON, A.M., | |
| Rev. J. J. MELHENNY, D.D., | |
| Rev. F. CHESTER, Ironton, O. | |
| Rev. E. F. HASTY, Cambridge City, Ind. | |
| Rev. J. C. ARMSTRONG, Salina, Mich. | |
| Rev. ARTHUR SWAZEY, Galena, Ill. | |
| Rev. ENSTEIN MORBOUGH, Cambridge City, Ind. | |
| Rev. RICHARD WHITE, Milton, Ind. | |
| Rev. CALVIN VALE, Martinsburgh, N. Y. | |
| Rev. JOSEPH ELDRIDGE, Norfolk, Conn. | |
| Rev. JOHN JENNINGS, | } Worcester, Mass. |
| Rev. H. J. WAYLAND, | |
| Rev. WILLIAM PHIPPS, | |
| Rev. OSMOND C. BAKER, Bishop | } Concord, N. H. |
| of M. E. Church, | |
| Rev. THOS. RATHAY, | |
| Rev. G. N. JUDD, Montgomery, N. Y. | |
| Rev. A. M. STOWE, Canandaigua, N. Y. | |
| Rev. WILLIAM LONG, Cliff Mine, Mich. | |

Offices of Exhibition and Sale:—495 Broadway, New York. 18 Summer Street, Boston. 730 Chestnut Street, Philadelphia. 181 Baltimore Street, Baltimore. 53 West Fourth Street, Cincinnati. 124 North Fourth Street, St. Louis. 115 Lake Street, Chicago. 13 Newhall House, Milwaukee. 5 Merrill Block, Detroit. 171 Superior Street, Cleveland.

SEND FOR A CIRCULAR.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

"A STITCH IN TIME SAVES NINE."

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for limping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary masticage, being vastly more adhesive.

"USEFUL IN EVERY HOUSE."

N. B.—A Brush accompanies each bottle. Price, 25 cents

Wholesale Depot, No. 30 Platt Street, New York.

Address HENRY C. SPALDING & CO.,
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,

SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,

SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,

SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,

SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,

SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by HENRY C. SPALDING & CO.,
48 Cedar Street, New York.

Address Post-Office, Box No. 3,600. Dec., 1852.—1y

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Gene-see Farmer and Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sold to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address if **JOSEPH HARRIS**, ROCHESTER, N. Y.

CONTENTS OF THIS NUMBER.

Dairying on Grain Farms.....	297
Cheese for England.....	298
Agricultural Exhibitions.....	298
New Jersey State Fair. Illinois State Fair.....	298
The Springfield Horse Show.....	298
Cotton-Seed Cake. Large crop of Rye.....	299
Spirit of the Agricultural Press.....	300
Late Sown Wheat. Boiled Corn for Hogs and Stock.....	3 0
Breaking Prairie Land. Buckwheat Straw.....	3 0
Sorghum Sugar. Salt for Fence Posts. The Tea Plant.....	300
Look to the Chests of your Animals.....	300
How the Shakers Unload Hay. The Cattle Disease.....	300
Feeding Turnips to Cows.....	3 0
Design for a Suburban Villa.....	301
Wheat from the south.....	302
More Good Calves.....	303
Notes for the Month—by S. W.....	304
An Unpatented Sowing Machine.....	305
Notes from Canada.....	305
Something about the Musk Duck.....	305
Fattening Hog. Where's your Proof?.....	307
New Sandy Land.....	308
Notes from Down East. Salt for Working Oxen.....	309
The American Lotus as a Substitute for the Potato.....	309
Fa ten Hogs Early. Setting Fence Posts.....	310
Weight of Hay for Sheep. Rats.....	310

HORTICULTURAL DEPARTMENT.

A Day in a Pear Orchard.....	311
A few words on Grapes.....	311
Blanching Celery. Grape Mildew in France.....	312
Dwarf Apple Trees.....	312
American Pomological Society.....	313
Neglect of Orchards—The present Fruit season.....	313
She ter for an Early Garden Plot.....	315

LADIES' DEPARTMENT.

A Suburban Cottage.....	316
Illness a cause of Disease.....	316
Original Domestic Receipts.....	316

EDITOR'S TABLE.

Great Provincial Fair of Upper Canada.....	317
Notes on the Weather.....	318
Items, Notices, &c.....	318
Weather and Crops in England.....	319
Inquiries and Answers.....	319
Books, Pamphlets, &c., Received.....	320

REVIEW OF THE MARKETS.

General Remarks.....	321
Market Reports.....	321, 322

ILLUSTRATIONS.

Design for a Suburban Villa.....	301
The Musk Duck.....	306
Dwarf Apple—the Wagener.....	312

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

By **JOSEPH HARRIS**.

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR: Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

☞ All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants.

The address of papers can be changed at any time.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.

Address

JOSEPH HARRIS,
Publisher and Proprietor, Rochester, N. Y.

THE
GENESEE FARMER.
FOR 1861.

In order that our friends may see that we are determined to do all that we can to recompense them for their generous efforts to extend the circulation of the *Genesee Farmer*, we announce thus early our List of Cash Prizes to be awarded to those who send us the largest clubs of subscribers on or before the fifteenth day of January, 1861. Last year, our highest Prize was \$25; this year, encouraged by our increased circulation, we head the list with a Prize of Fifty Dollars in Cash! and in order that our friends may have time to do all that they can to extend our circulation, and to give those residing in places where we now have but few subscribers an equal chance with those where the *Farmer* is better known, we have concluded to send the *Genesee Farmer* for the three remaining months of this year and the entire volume for 1861, for Fifty Cents! This will give all our friends who intend to compete for these Premiums an opportunity to commence at once.

January Cash Premiums.

1. FIFTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers for the next volume of the *Genesee Farmer* before the 15th day of January, 1861.
2. THIRTY DOLLARS in Cash to the person who shall send the second highest number, as above.
3. TWENTY DOLLARS for the third list.
4. FIFTEEN DOLLARS for the fourth.
5. TEN DOLLARS for the fifth.
6. NINE DOLLARS for the sixth.
7. EIGHT DOLLARS for the seventh.
8. SEVEN DOLLARS for the eighth.
9. SIX DOLLARS for the ninth.
10. FIVE DOLLARS for the tenth.
11. FOUR DOLLARS for the eleventh.
12. THREE DOLLARS for the twelfth.
13. TWO DOLLARS for the thirteenth.
14. ONE DOLLAR for the fourteenth.

In competing for the above Premiums, it must be borne in mind that no subscription is taken for less than a year. Those wishing the paper for the last three months of this year, must send fifty cents for each subscriber, and the subscriber will then get the paper for fifteen months, viz: the October, November and December numbers of this year, and the entire volume for 1861. Those who wish the paper to commence with the January number for 1861, can have it in clubs, as hitherto, at 37½ cents each per annum.

SPECIFIC PREMIUMS.

1. To every person who sends us Eight Subscribers, (at 50 cents each, for the fifteen months—October, 1860, to December, 1861, inclusive—or at 37½ cents for the year 1861) we will send, postage paid, a copy of the *Rural Annual* for 1860, or, as soon as published, for 1861.

2. To every person who sends us SIXTEEN subscribers, (as above) we will send one extra copy of the *Genesee Farmer*, and one copy of the *Rural Annual* for 1860, or 1861.

3. To every person sending us TWENTY-FOUR subscribers, (as above) we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

Those who send more than twenty-four will probably take one of the Cash Prizes. If not, Specific Premiums will be sent in the same ratio as the above.

Clubs are not required to be at one post-office, or sent to one address. We send the papers wherever the members of the club desire. It is not necessary that the club should be sent in all at one time. Names can be added at any time, and all that are sent in before the fifteenth of January will be counted in. Send on the names with the money as fast as they are obtained.

☞ Money may be mailed at our risk, and you need not "register" the letters.

Address **JOSEPH HARRIS,**

PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,
September 1, 1860. ROCHESTER, N. Y.

THE
Gene See Farmer
PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., NOVEMBER, 1860.

No. 11.

FATTENING SHEEP IN WINTER.

THE profit of fattening sheep during the winter months, in this country, depends principally on the increased price obtained for the mutton in the spring.

In England, where fattening sheep in winter is carried on more extensively than in any other country, the profit is due simply to the increase of mutton and to the value of the manure obtained from the sheep. As a general rule, the fat sheep in February or March are worth no more *per pound* than the lean sheep were the October previous. We have heard experienced English farmers say that if they sold their fat sheep in the spring for enough more over their cost in the autumn to pay for the grain or oil-cake which they had eaten, they were satisfied. That is to say, they considered the manure from the sheep equal in value to the turnips and straw consumed. The profits of cattle or sheep feeding in England depend principally on the question whether the farmer can obtain manure cheaper by purchasing cattle food or artificial fertilizers.

In this country, we have hitherto given little attention to the manurial aspect of the question; but it is beginning to force itself upon our attention.

If we obtained no more *per pound* for mutton in the spring than we do in the fall, as is the case in England, we believe fattening sheep in winter would not pay, even after taking the value of the manure into account. This is owing to the comparatively low price of meat in this country. For instance, a sheep weighing say 90 lbs. will eat about 20 lbs. of hay per week, or its equivalent; and, if of the best breed will increase $1\frac{1}{2}$ lbs. Thus one ton of hay would give us 150 lbs. of increased live weight, worth say 5 cents per lb. This would give us \$7.50 for one ton of hay, or its equivalent.

But assuming that we can buy sheep in the fall for $2\frac{1}{2}$ cents per lb., and sell them in February or March for 5 cents per lb., the account would stand

something like this: A sheep weighing 80 lbs. the first of November, costs \$2.00. Fed till March 1st—say 16 weeks—he would weigh, reckoning as before that he would increase $1\frac{1}{2}$ lbs. per week, 104 lbs. At 5 cents per lb., he is worth \$5.20—leaving \$3.20 to day for the food. He has eaten in the 16 weeks 320 lbs. of hay, or 20 lbs. per week. In other words, we get \$3.20 for 320 lbs. of hay, or \$20 per ton.

If, then, mutton was as high in the fall as in the spring, say 5 cents per lb. live weight, we should obtain only \$7.50 per ton for the hay consumed by the sheep; but if it can be bought for half the price in the fall that it commands in the spring, we obtain \$20 per ton for the hay.

These figures may not be absolutely correct, but we give them to illustrate the advantage which our farmers have in being able to obtain a much higher price for meat in the spring than in the fall. Those who contend that fattening sheep in winter is not profitable, are apt to overlook this fact.

We speak advisedly when we say that there is much more profit in fattening sheep during the winter in this country, under the present circumstances, than there is in England, notwithstanding the higher price obtained there for mutton.

If the profit of fattening sheep in winter depended solely on the increase of the sheep, *it is certain that the large breed of mutton sheep*, say Cotswold, Leicester or Southdown, would be the most profitable sheep to fatten,—as they will increase more, for the food consumed, than the Merino. There can be no doubt on this point. But, as we have shown, this is not the only question. We must go back of this and see which breed of sheep can be bought at the lowest price per pound in the fall. At present, there can be no doubt that the common sheep of the country, with more or less Merino blood in them can be bought the cheapest. Whether it will always be so or not is another question. It is quite possible that it will prove to be a fact that the fine

wooled sheep can be raised up to the age when they are usually turned off for the butcher or to fatten at less cost than the larger, coarse woolled sheep. They have been kept principally for their wool; this commands a higher price, and the proportion of wool to the weight of the sheep is higher. And as it is certain that, other things being equal, sheep consume food in proportion to their live weight, it follows that more wool, and that of a better quality can be obtained from a given quantity of food from the fine woolled sheep than from the large English breeds.

Our esteemed correspondent JOHN JOHNSTON, who has had much experience in fattening sheep, informed us some years ago, that the common fine woolled sheep of the country were the most profitable sheep he could buy for fattening in winter. He now advocates fattening larger sheep, stating that they will fatten more easily than the smaller sheep. In this he is unquestionably correct, and it follows that the larger sheep are the most profitable, *provided they can be purchased at the same price per pound in the fall.*

For fattening, then, select the largest and thriftiest sheep that can be obtained at a proportional cost. The fatter they are to commence with the better; for this fat has been put on at a less cost than it can be done during the winter on hay and grain.

For fattening sheep in winter there is nothing equal to good *clover hay*. We have known sheep increase over 2 lbs. per week on clover hay alone for four months. They were Southdowns, and eat about 3 lbs. each per day. A little grain or oil cake can be fed with profit—if the increased value of the manure is taken into consideration. Corn is nearly, if not quite, as fattening as peas or oil-cake, but the manure is by no means as valuable. Thus the manure from a ton of Indian corn is worth, according to the highest English authority, \$6.65, while from a ton of peas it is worth \$13.38 and from a ton of oil-cake \$19.72. Barley and oats are about equal to corn in this respect. The crop of oats this year is unusually heavy and they will doubtless be cheap. We need not say that they are excellent for sheep.

Sheep will bear pretty close confinement. We have seen them fattened in England in pens where there was little more room than was necessary for them to lie down comfortably. They were placed on narrow boards, say two or three inches wide, with an inch between each board for the droppings to pass through. The pens were thatched to keep off the rain and were closed up on three sides. We have never seen healthier sheep. They were quiet,

warm, clean and comfortable and fattened rapidly. Sheep must have *dry* quarters. Nothing is so injurious as wet. It is an old remark—that “sheep do better on roast meat than boiled,” and it is equally true that they will do better in even cold quarters, if dry, than in warm yards if wet. Cows will lie down on a warm fermenting dung hill; sheep never, if they can find a firm, dry spot.

Another point must not be forgotten. Sheep are timid animals. No one should have anything to do with them who is not a *gentle*-man. A dog is an especial nuisance.

It is a great mistake to suppose that sheep will thrive without water. When the celebrated Rothamstead experiments were in progress, it was found that the sheep having clover hay drank large quantities of water, and a famous sheep breeder who came to see them expressed the idea that they drank more than was good for them. To test the question, the quantity of water was restricted to what he thought the proper amount; but on weighing the sheep at the end of the week as usual, it was found, if we recollect right, that every sheep had lost weight—at least the scales indicated that they had not done as well as usual, and for the future they were allowed all they would drink.

Regularity in feeding; quiet, warm, dry, well ventilated, clean quarters; access to fresh water; a little salt, (we think) and plenty of nutritious food are the essentials of successful sheep-breeding.

As to the quantity of grain it will pay to feed sheep, we think more than a half to three quarters of a pound per head per day is rarely fed to advantage, unless they are very large sheep. The English farmers usually allow a pound of oil-cake per head per day to sheep weighing 100 to 140 lbs. This is high feeding. We believe it is better to give only a little at first and increase the quantity after a while, especially in cold weather. It must be borne in mind, that a certain quantity of food is necessary to keep the sheep in its natural condition—to keep it from losing weight; and that it is the excess of food over this point alone that enables the animal to put on fat. This is an argument in favor of high feeding; but we must not run to extremes. It is easy to feed so high that every pound of fat shall cost us double what we get for it. We seldom err, however, in this direction.

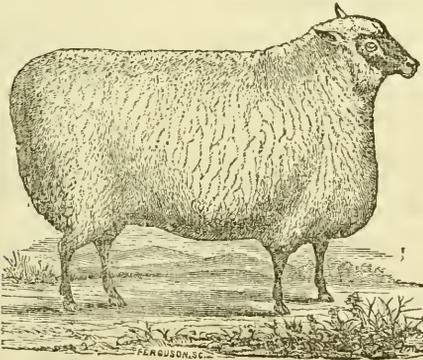
It is much more common to feed too little grain than too much. It would be well for most farmers to make a rule never to sell corn or oats off the farm. This has been JOHN JOHNSTON'S rule and it is our secret of his success.

THE AGRICULTURAL FAIRS.

NEW YORK STATE FAIR.

THE Twentieth Annual Fair of the New York State Agricultural Society was held at Elmira Oct. 2-5. The weather was unpropitious, and the attendance, in consequence, was not as large as usual. The receipts were a little over \$9000. The exhibition itself was in some respects excellent, but on the whole it did not come up to what we expect from the farmers of New York, or to many former exhibitions of the Society.

In the Stock department, the absence of some of the great Cattle Kings was at once noticeable. There were, however, some splendid animals on exhibition. We do not propose to particularize, but the noble shorthorns of SHELTON, CORNELL, HARRISON and others, and the Herefords of CORNING, and REMINGTON, were alone worthy of a visit to the Fair.



SHROPSHIRE DOWN WETHER.

The novel attraction of the Sheep Department was a pen of "Shropshire Downs," recently imported by JACOB LORILLARD of Fulham, N. Y. These sheep have come into public notice in England only within the last four years, and this is the first pen we have seen in this country. We have repeatedly spoken of them as among the most useful sheep of Great Britain. They are larger than the true Southdown—larger even than the Hampshire or the Oxford-Downs; and yet possessed of the symmetry and compact form of the true Southdown. Those shown by Mr. LORILLARD were models of beauty. They created quite a *furor* among the sheep men;—and that veteran Leicester breeder GEO. MILLER of Canada remarked to us "I will be in Shropshire in six weeks." We annex an engraving of a Shropshire Down wether.

Among the Pigs we noticed a fine pen of Yorkshires, shown by A. B. BENHAM of Tompkins Co. They were white, and of good length and size.

AMOS T. WOOD of Jefferson Co. and many others showed some excellent Suffolks.

One of the Arabian horses recently imported by the Hon. W. H. SEWARD was on the ground and was the "lion" of the occasion.

There was a fine show of Implements and Machines, but we noticed few novelties. There were a great number of Straw Cutters, some of them curiosities of complication. We noticed one in which the box moved up and down, while the knife remained stationary. A. GORDON of this city showed one of his excellent machines in which the knives cut up instead of down—an improvement it is said which renders the knives less liable to being dulled by sand or dirt in the fodder. It also crushes corn stalks as well as cuts them. Washing machines were out in full force and attracted much attention.

The show of Grains and Vegetables was meagre in the extreme, and of cheese there were but two entries!

The display of Fruits was truly splendid. Among the novelties was the Ontario grape shown by Dr. PRESBEEY of Buffalo—very large, of fair quality and several days earlier than the Isabella or Concord.

THE OHIO STATE FAIR

Was held at Dayton September 25-28. The weather was fine, except on the morning of the third day, and the attendance was large. The receipts were about \$12,000.

The show of Shorthorn Cattle was magnificent. There were prizes of \$200 and \$100 offered for the best and second best herds, of one bull and four cows. There were nine herds on the ground. FULLERTON of Ohio took the first prize and BRUTS J. CLAY of Kentucky the second. A prize of \$100 was offered for the best breeding bull and five of his calves. This was taken by R. G. DUN of Ohio.

Horses were out in full force, and there was also a great display of Jacks and Mules.

The display of Swine was such as could only be made in Ohio. There were 152 hogs of the large breeds and 32 of the small.

The display of Implements and Machines was unsurpassed. A noticeable feature in this department was a large number of Sorghum Sugar Mills and Evaporators—indicating that this plant is receiving considerable attention in the West.

There was a fine show of Fruits. ELLWANGER and BARRY of this city being on hand as usual with their superb collection of pears and plums. They also exhibited 100 varieties of apples, but these says the *Ohio Farmer*, "were completely eclipsed

in size and color by the specimens from the warmer climate, and richer soils of Ohio and Indiana." A useful and attractive feature was a collection of *wild fruits*, shown by Thos. BUSHNELL of Ashland, Ohio. It consisted of upwards of eighty species, including grapes, nuts, acorns, persimmons and berries of all kinds.

THE MICHIGAN STATE FAIR

As usual, was held at Detroit Oct. 2—5. Unlike our own State Fair, which was held at the same time, the weather was fine. The attendance was large, but the receipts, owing to a falling off in the number of entries, were somewhat less than last year. There were only 130 entries of cattle. Last year there were 215. In no single department were the entries as numerous as the year before. Thus the aggregate entries in 1859 was 2340; this year only 1718. Considering the improved condition of the farmers prospects this diminution was unexpected.

THE IOWA STATE FAIR

Was held at Iowa City, Oct. 2—5. It was the best and most successful of the seven exhibitions, made by the Society. The entries for the last few years show a gradual improvement. Thus, in 1856 the total number of entries was 956, in 1857, 1,129; in 1858, 1,044; in 1859, 1,269; in 1860, 1,700. The cash receipts this year were about \$4000.

A correspondent of the *World* states that many farmers were present who had come from 50 to 200 miles in their own conveyances! No wonder that a state settled by such a people is fast taking rank among the foremost in the confederacy. There was a fine show of cattle—the Shorthorns predominating. There were 33 entries of them and 12 of Devons. There were 82 entries of Grades and Crosses making a fine display. We believe Iowa has furnished more fat cattle for the New York market this year than any other state. There was a poor show of grains, fruits and vegetables. There were numerous samples of Sorghum Syrup and Sugar, indicating that the Chinese sugar cane is cultivated to a considerable extent.

Meetings were held in the evenings during the Fair, at which the following subjects were discussed: "What breed of sheep is best adapted to this state?" "Which is the most profitable for Iowa farmers, to raise wheat for transportation, or raise only sufficient for home consumption and devote their capital to raising stock and other products?" "What breed of horses is best adapted to Iowa, all things considered, and same questions in regard to cattle?"

THE NEW HAMPSHIRE STATE FAIR

Was held at Manchester Oct. 2—5 and appears to have been very successful. LEVI BARTLETT gives an account of it in the *Country Gentleman*. He mentions a pair of Durham oxen, measuring 10½ feet in girth and weighing 8,087 lbs., for which \$1,200 was offered. A pair of twin heifers were shown, 16 months old, weighing 2,080 lbs. When one year old they did not vary a pound in weight—and at no time since their birth have they varied as much as 10 lbs. The mother of these twins was herself a twin, and the year before the birth of these heifers she produced a pair of twins, one of both sexes. The heifers are three-fourths Durham.

Fine specimens of sheep of the various breeds and crosses were on exhibition, and Mr. B. thinks there is a tendency towards the rearing of mutton, rather than fine woolled sheep. The Swine shown indicated that the Land-shark and Pike varieties of hogs have disappeared.

One sample of Spring wheat was labelled "Fifty Bushels per acre." Fruit was never finer. The hen-fever having subsided, the show of poultry was nearly whittled to a point. A small coop of Dorking fowls, two pairs of geese, and a pair of Muscovy ducks, was about the sum total of this department of the Fair.

There was a large display of Agricultural Implements. The Mowing Machines were numerous and the attention they attracted and the favorable opinion of them generally expressed indicated that the time is not far distant when a large portion of the grass of New Hampshire will be cut by horse or ox power instead of the scythe. The "Young America" Corn Sheller, if it had been a breathing animal would have stood a "right smart chance" of being smothered by the dense crowd who thronged around to witness its practical operations.

A "Churn and Butter Maker" that brought the butter in three minutes attracted much attention. In a trial on the grounds the "butter was churned inside of three minutes, salted, worked, and moulded into pound lumps in less than ten minutes from the time the cream was put into the churn. Human hands or fingers had not touched the butter when exhibited, and it was none of the greasy, mottled stuff, that too often passes under the name of butter, but yellow, granular in fracture, solid and sweet." We presume it was the same churn as that exhibited at our own State Fair, and which was claimed to churn in "a minute and a half."

The Maine State Fair, the Fair of the American Institute, the Pennsylvania State Fair, the Great

Fair at St. Louis, the Wisconsin State Fair, as well as the hundreds of equally useful town and country fairs all deserve notice, but our space forbids.

SPIRIT OF THE AGRICULTURAL PRESS.

FRUIT TREES IN THE VICINITY OF BARN-YARDS.—

It would be well, says the *Saratoga Farmer*, if farmers would surround their barn-yards and pigpens with fruit trees. Such trees bear abundantly, and heavy crops of plums can often be obtained in such places, as the stung fruit is sure to be picked up and devoured as soon as it falls, thus preventing the increase of the curculio. Apples, pears, cherries, and all other fruit, do well for the same reason, and they are also provided with a plentiful amount of liquid manure from the drainage of the barn-yard.

CHANGE OF SEED.—The *Irish Farmer's Gazette* says, that "barley seed requires to be frequently changed; and if this is neglected, the result will be a deterioration in the quality, which, of course lessens the value. In an article on the culture of flax the editor of the *Irish Agricultural Review*, says that a change of seed has proved "decidedly beneficial." A correspondent of the *Country Gentleman* recently stated that he had found a change of oats so important that he now imports his seed triennially from Prince Edwards Island, Canada.

ICE HOUSES.—A correspondent of the *Country Gentleman* says he had an ice house made two years ago, 16 feet deep and 16 feet in diameter perfectly round, made of stone, plenty sand at the bottom to take off all water. He filled it last winter with snow ice, just threw it in without placing it and covered with straw, (put straw at the bottom on rails first,) more on the sides, and he had all the ice he wanted and plenty left yet.

HEMP IN MINNESOTA.—During the past season, says the *American Agriculturist*, many farmers in Minnesota have undertaken the cultivation of hemp, with very promising results. Heretofore this crop has been mainly confined to Missouri and Kentucky, where it forms a staple. The demand exceeding the home grown supply, makes this a profitable article where it succeeds.

PRESERVATION OF CUT FLOWERS.—A French Provincial paper states that cut flowers may be kept fresh for a long time by the introduction of a spoonful of powdered charcoal into the water contained in the vessel in which they are placed. Neither the charcoal nor the water requires renewal, the latter remaining limpid.

MULCHING WHEAT.—Dr C. HARLAN of Wilmington, Del. advocates mulching wheat. One way of doing this is to sow buckwheat with the wheat in the fall. He says the buckwheat "will often grow 2 feet high before the frost kills it. It will catch the driving snows, and prevent the winds from sweeping the earth away from the tender roots. It will prevent the frosts from throwing out the crop; and when Spring returns, it will rot down, and assist to nourish the young plant when it most needs it.

This application of buckwheat, is not an untried experiment. It was followed, and strongly recommended, nearly 20 years ago, by JAS. GASKINS, who published a valuable little work, in defence of this practice."

MAINE ITEMS.

THE WEATHER.—The last part of September was very windy and cold, for successive days; on the equinox the wind blew a gale; heavy frosts were prevalent, water congealed and the ground froze on the night of the 28th and 29th: on the morning of the 29th at sunrise, the thermometer indicated 28°. The first killing frost of the season was on the night of the 23rd; the mean for September was 55.6°, extremes 28° and 77°.

DAHLIAS.—In the September *Farmer* you speak of dahlias measuring upward of eight feet; my neighbor grew one—a maroon color—the present year which reached the length of eleven feet, but the cold of last month "laid it low." Isn't that some dahlias for away down east?

KEEPING RATS FROM GRANARIES.—Some granaries in this section—where plenty of rats do congregate—are built upon round posts, the posts covered with smooth sheet zinc or tin, to prevent the rats climbing up, and provided with moveable steps.

FATTENING TURKEYS.—The manner in which we fatten turkeys hereabouts is to place them in a dark pen furnished with a roost, and keep them stuffed with corn meal dough, without giving them water; in nine days they are fit for market. Turkey raising is not as a general result very profitable, they are so liable to disease when young, and very troublesome to the farmer from their strong propensities for ranging.

SAVING CORN.—It is the practice of farmers in this vicinity who raise small amounts of corn, to leave part of the husks upon all of the sound corn that can be conveniently left when husking, and to trace or braid the ears so left into strings, or traces containing from forty to fifty ears to the trace, and then hang upon poles in the garret or chamber.

The superiority of this method consists in the corn requiring no more trouble after it is hung up—will not mold—and is free from the attack of rats and mice.

The weather for October, so far, has been capricious and varied, warm rains, heavy winds, calm days, alternating. There was a slight snow squall on the evening of the 6th, during a strong gale of wind.

G. S. BRACKETT.

Belfast, Maine.

DISCUSSIONS AT THE N. Y. STATE FAIR.

At the State Fair at Elmira, meetings for discussion were held in the evenings, at which much interesting information was elicited. On Tuesday evening, the subject proposed for discussion was "Indian Corn; Soils Best Adapted to it; Proper Method of Culture on Different Varieties of Soils; Its Value as a Farm Crop."

The Hon. T. C. PETERS, of Genesee County, presided. Speakers were limited to ten minutes.

MR. BRAINARD, of Attica, N. Y., planted corn on an inverted sod. Spreads the manure on the sod and plows it in. Does not "hill" the corn. Thinks corn fodder valuable. Cuts up the corn at the roots. In a good season this gives most corn. In a poor season there is not so much gain as compared with topping. Never knew the full value of cornstalks till last winter, when fodder was so scarce. He chaffed his stalks and straw—two-thirds stalks and one-third straw. His horses did well on it. Horses fed on corn leaves never had the heaves.

T. C. PETERS said chaffed stalks were good for horses. He did not believe in *deep plowing* for corn. He would like to hear from others on this point.

S. WALRATH, Canton, St. Lawrence county, thought corn a more profitable crop than hay, which was the principal crop in his county. Planted his corn on green-sward, $3\frac{1}{2}$ feet apart each way. Hen manure excellent for corn. Had raised 80 bushels per acre. He planted the small eight-rowed and King Philip varieties. Cultivates by using the horse-hoe both ways. Does not hill.

MR. BROOKLAND, of Duchess county, tried an experiment two years ago. He drew out 12 loads of manure per acre on a one year old clover sod. He then threw the land up into ridges four feet apart, and, as we understood, then cross-plowed so as to form hills four feet apart, with the manure in the centre. He had 71 bushels on an acre, and the whole field of ten acres averaged 62 bushels per acre. He planted the eight-rowed Canada corn. Put a handful of plaster and ashes in each hill. Thought this method of culture would give large crops—but it was too much labor for general adoption.

JOHN S. PETTIBONE, of Manchester, Vt., thought the value of cornstalks for fodder depended on the number of "nubbins" the boys left in at husking! Would not top corn if he had grass enough. If grass was scarce would cut up the corn. Corn that is topped makes good fodder. The stalks, when topped, of a crop of corn that would yield 40 bushels per acre, are equal in value to a ton and a half of hay. When corn land is left bare in winter the strong winds blow off the fine soil, and on the side hills much of the richest portion of the soil is washed away. By topping the corn and leaving the butts standing on the land, this blowing and leaching is prevented. If he had regard simply to the amount of fodder he could get, he would cut up the corn at the roots; if he had regard to the soil, he would top the corn.

S. WALRATH thought cutting up gave more fodder, and thus enabled you to keep more stock, and to make more manure, and thus enrich the land. The increase of manure thus obtained would more than compensate for the injury done by blowing and washing.

GEN. MARSHALL, of Wheeler, Steuben county, thought farmers made a great mistake in being in such a hurry at planting time. They thought every year they would do better next time, but when the time came they were in just as great a hurry as ever. It does not pay to let boys do the planting. It would be more profitable to pay a man that would do the work properly, \$5.00 a day. His soil was a gravelly loam. He drew out coarse manure on clover sod, and then turns it in as deep as he can and do the work well. Then rolls if necessary, and harrows till the ground is in good condition. Plants four feet apart each way. He smears the seed with soft-soap heated in a kettle and then dries it till planted. The soap softens the seed and causes it to germinate more readily, while tar retards germination. He hoped farmers would try soft-soap—and we hope so too. The idea strikes us favorably. Had used hen manure mixed with unleached ashes, half and half, a handful in each hill, with good effect. On the right kind of land corn is the most profitable crop a farmer can raise. Feeds the stalks to his cows. In reply to

a question, he said he never fed stalks to sheep. Gives his sheep straw, with a little grain.

MR. PLUMB, of Onondaga county, prefers a clover lay of two years old. Plows under twenty loads of manure per acre. Does not plow more than six inches deep. Harrows and then puts on a two-horse cultivator. Plants three feet apart each way. Uses a horse-hoe freely, but does not hand-hoe, at least but very little. Uses ashes and plaster. Expense of cultivation from \$8 to \$10 per acre. Does not like much hill. Will not pay to hand-hoe much. Has raised from 180 to 155 bushels of ears per acre. Thinks corn more profitable than any other crop he raises. Does not top his corn; cuts it up by the roots. Thinks the fodder very valuable. Last year, on the stalks from ten acres of corn, he kept 150 sheep and twelve cows to the 1st of March. They had access to a straw stack. Raises the large eight-rowed yellow corn—ears from eight to twelve inches long. In reply to a question, he said he had raised the white variety but liked the yellow better. Does not like the Dutton.

T. C. PETERS spread the manure out on sod-land in the fall, and plowed it under in the spring four inches deep. He had tried planting three feet apart each way and three and a half one way and three feet the other. The thick planting gave most fodder, but less in proportion to the stalks. He chaffs his fodder. Has tried an experiment to determine the relative value of cornstalks and timothy hay. Both were chaffed and steamed. *The cows having the cornstalks gave the most milk.* The great secret of success in corn culture is to have the ground made very fine before planting. Never hills his corn. Never hand-hoes, except to kill Canada thistles. In reply to a question, he said he would not save his manure from the spring crops for the sake of applying it in the fall, but would use all he had on hand in the fall. He liked to make all the manure he could during the summer.

SOLOM ROBINSON, of the New York *Tribune*, was called out, and said he had purchased what was called a "worn-out" farm in Westchester county, because he was tired of living on the pavements of New York. Some of the land had not been plowed for thirty years. He put in the plow as deep as he could get it for the stones, and then followed with a subsoil plow. He drilled in the corn, in drills three feet apart, and dropped the seed ten inches apart in the drills. He planted the Improved King Philip variety, which was the best he had ever seen in the State of New York. The season was very dry, and the corn did not do much at first, but he had a splendid crop after all. He cut it up (this year) the middle of September. He would cut up as soon as the best ears were well glazed. The fodder from his crop of corn was worth more per acre than the best crop of hay per acre in his neighborhood. If cut rather green and well cured, and afterwards chaffed, he thought cornstalks as good as the best timothy hay for horses and cattle. A gentleman at Springfield, Mass., had informed him that he had proved by actual experiment, that nine pounds of cornstalks chaffed and steamed were equal to twenty-five pounds fed in the usual way.

THE Hon. A. B. DICKINSON, of Steuben county, was loudly called for. He thought climate had as much to do with the culture of corn as soil. The soils of England are as good as in this country, but they could not grow corn. The climate was not hot enough. This very valley in which we are now, is one of the best corn growing regions in the country. It requires more labor to grow corn here than in the Sciota or the Miami valleys, but he had never seen as heavy crops there as here and in Western New York. He had bought thousands of acres of corn in the Western States, but never saw a crop of 60 bushels per acre that weighed 60 lbs. per bushel. Has seen a crop here of 120 bushels per acre. In regard to deep or shallow plowing, he would plow just as deep, and no deeper than the best soil went. If the land had been plowed deep before, and was rich to that depth, he would plow that depth, but he would not turn up raw, poor soil for corn. In plowing be careful to cover all grass and weeds. The distance of planting depended on the richness of the soil, and on the variety. Here the object should be to plant a variety that is sure to ripen, even if it is small. Plants such a small, early variety in drills three feet apart, and 20 inches apart in the drills, leaving three plants in a hill. In regard to hoeing; the soil here is apt to crust over, and he liked to break this crust nearer the hill than could be done by the horse-hoe. At

the west the corn shot up rapidly, and hand-hoeing was unnecessary. He thought *good* stalks were better than *poor* hay, but that there is as much virtue in an acre of corn-stalks as in an acre of hay is ridiculous. Hay will fatten cattle, stalks will not.

SECOND EVENING.

The subject proposed for discussion this evening was: "Wool Growing and Mutton Sheep; Breeds Best Adapted to Each; Is it Desirable to Increase the Breeding of Sheep in this State, for Wool or Mutton?"

JOHN WADE, of Cobourg, C. W., stated that in Canada they preferred the larger, long-wooled, mutton sheep, because they can make more money by them. Considers them harder than the fine-wooled sheep. Will shear 8 lbs. of washed wool. The wool is not worth so much per pound, but on the whole they are more profitable. He finds it advantageous to feed well. Gives his sheep "all they want," but has never measured the quantity. In order to keep up the vigor and hardihood of the Leicesters, it had been found necessary to cross them with the larger and stronger Cotswolds and Lincolns. He remarked that BARKWELL procured all the best animals he could find around him, and bred them in-and-in, which injured their stamina, and rendered necessary a resort to Cotswold blood.

JOHN S. PETTIBONE, of Vermont, had long been convinced that for a farmer who has but 50 or 75 sheep, it is best to keep the larger mutton breeds; but for a flock of 200 to 1,000, the fine-wooled would be the most profitable. A common cause of failure is in allowing the animals to run down in condition in autumn, at a time when the amount of feeders has increased by the growth of lambs, and the feed lessened. He regarded it important to have plenty of pasture and hay, which will maintain a good condition, but remarked "grain will do no hurt." He keeps them close and well-sheltered during winter, and never lost but two lambs, which were by accidental injury. He said that one great secret of success was to attend to your flocks personally, and good care would be the result—he never knew a man to look at his pig while it was feeding unless it was fine and fat—the man who has poor animals always gives the food and then runs away. He never sells his best, but always keeps his best sheep—he keeps a record, and has them all registered, and no one can buy of him any that are marked "*best*." He does not like excessively gummy sheep, and has known one to shear 22 lbs., but give less wool when washed than a clean-wooled one of 12 lbs.; yet many differ from him because every one thinks "*my* sheep are best." When he commenced the sheep business first, he let all the ewes breed that would, and the consequence was he lost a great many sheep. Since he had been careful to select the best ewes for breeding, he had met with few losses. Keeps a flock of 100 breeding ewes. Feeds them one peck of corn per day, or its equivalent in oats or other grain. Has one ewe that has raised him eighteen lambs, and never sheared less than 4 lbs. of wool, and from that up to 6 lbs. Does not like these extra gummy sheep. When the gun begins to run in the spring, they want blanketing. Sometimes feeds only once a day; never more than twice a day. Twice a day is better than three times.

WM. BAKER, of Urbana, Steuben county, has kept fine-wooled sheep—his management is to give his lambs a very little grain, beginning in October and continuing until winter—he then yards them where there is always a supply of water, feeds them in racks twice a day just what they will eat, and no more. He has never raised the coarse-wooled breeds—his fleeces are not gummy, and yield $4\frac{1}{2}$ to $4\frac{1}{2}$ lbs. per head, and sometimes more. He winters 400 head in a barn divided into three parts by a low board fence. The proceeds of his flock vary considerably, but average about two dollars per head annually. He is very particular to feed them always at the same time of day, with great regularity. He gives straw only a part of the time—if given constantly, he would add grain. He maintained that there is nothing like a flock of sheep to keep up the fertility of land; has kept 800 sheep a year on something less than 200 acres of land, including the hay and pasture for them; and has made the land so fertile as to raise 120 bushels of shelled corn on an acre. He feeds potatoes, beets, or carrots, to the

ewes 20 days before lambing, and regards potatoes as the richest food, and beets the easiest raised on his land.

Gen. HARMON, of Monroe county, commenced sheep husbandry with the fine-wooled or Merino. After a few years, he crossed with Leicester,—then gave up the cross, and returned to the fine-wools. He greatly prefers the latter on his fertile wheat lands; finds their compact fleeces will keep the water out, and for this reason are harder than the long and open-wooled. When he first crossed with the latter, he gave \$25 for the use of a long-wool ram for 25 ewes, and then bought for \$50 another ram of the same kind, but would have made money had he given \$50 to the man to keep him away. That was the amount of his experience with long-wool sheep. He does not allow ewes to have lambs under three years, and the fleeces average $4\frac{1}{2}$ to 5 lbs. From 322 sheep he sold the last two years \$705 worth of wool yearly—two years ago he had about 100 lambs, which he sold for \$200, making \$905 yearly proceeds. He occupies less than 200 acres, with mixed husbandry, feeds but little hay, but straw, corn, oats, and some bran—feeds in racks made of upright sticks set in holes bored in plauk, nine inches apart, and covered with scantling, where the animals eat quietly without molesting each other. In winter keeps his sheep in pens 14 by 40 feet; 50 sheep in a pen. He washes the fleeces on the sheep, in a stream, till the water runs clear from them, and shears five to eight days afterward. Shearers offered to do the work for six cents per head or for \$1.75 per day—he accepted the former, but so large were the fleeces that they could make but \$1.50 per day. He has fed his flock on 25 acres of reclaimed swamp, but remarked "there is no tallow in this land," it would merely keep the sheep but would not fatten them. Feeds his chaff to his sheep, and thinks highly of it.

LEWIS F. ALLEN, of Black Rock, stated that he had kept sheep about 25 years, and that he has found it to depend entirely on circumstances whether sheep raising, or coarse or fine-wooled animals are profitable. He related the anecdote of the builders of the city wall—the mason advised stone, the carpenter wood, while the tanner thought there was nothing like leather. So every man had his preference with sheep. It is important to look to circumstances—along the line of railroads and near cities, the South-Down sheep are best, being easily sent to market as mutton—in more remote regions he would select the Merino. He sells the South-Down at \$5 or \$6, and sometimes \$8 or \$9, per head, and his lambs for \$2.50—the wool at 40 cents per pound. In answer to a question whether he could distinguish different breeds by the taste of the mutton in thin slices, he said that he could—and remarked that fine-wooled animals secreted much grease and thus prevented proper perspiration, and that he could "taste the wool" in the meat. He does not like the larger coarse wool animals, remarking that Canadians, who raise them so largely, have their foreign predilections—he had seen ewes of these sorts in Canada weighing 200 lbs. and rams between 300 and 400 lbs., "and as fat as they could roll,"—he defied any man to eat a full meal of them—they were sent to the St. Nicholas and other large hotels in New-York, made a great show on the tables, and were much admired, but only a pound or two could be eaten off of a twenty-five pound piece, and the rest went to the tallow-chandler—one might as well try to eat a cake of tallow. Roots should be fed cautiously to sheep, or they will scour. A few may be given with advantage at lambing time.

H. BOWEN, jr., of Medina, Orleans county, has raised both kinds of sheep, fine and coarse woolled, for the past seven or eight years. He lives about 30 miles this side of L. F. ALLEN'S, and also in a fine wheat region, and finds the coarse-wools the most profitable. His animals have averaged about 150 lbs., and sell for \$5 to \$10 or \$12 per head, while the Merinos bring only \$3. They have averaged six pounds of wool, which has sold at 31 cents per pound—some have yielded 8 lbs. He thinks they are a cross of Cotswold and Leicester, and says they have a compact fleece, and not loose and open, as had been previously objected to. He would prefer to have the sheep eat off his crop of clover and yield their manure, to plowing in the green crop.

L. F. ALLEN thought on heavy soil it would be best to plow in the clover—that it would render the soil looser—but that on a light soil, the sheep manure might be best.

SOLOX ROBINSON, in reply to a question, said the South-

Down brings the best price in New-York city,—and next to these, the long-wooled sheep of Canada—that generally the largest carcass (such as had been asserted as “only fit for the tallow-chandler”), brought the highest price per pound. Common butchers did not distinguish the difference,—“their *taste* was to make the most money they could.”—but a class of first-rate retail market butchers pay a higher price for the best. He stated that early lambs, well fattened on grass, from New Jersey, brought, first in the season, five dollars per head, and afterward three to four dollars—and that a distinguished farmer up the river buys western ewes, breeds with them from his South-Down rams, and sells both in autumn for about \$7 for each ewe and lamb.

THICK OR THIN SEEDING.

The time allotted to the sheep question having expired, and “Miscellaneous Subjects” being in order:

The Hon. T. C. PETERS, of Genesee county, said in explanation of his remarks on a previous evening, that the field planted in hills three feet apart was *good*—but in the field three and a half feet apart the ears were larger, and there was consequently more corn for the number of stalks, not more on the land. He was satisfied that we often greatly over-estimate the products of cornfields. He found there were 400 grains on an eight-rowed ear, and that it required four such ears, shelled, to make a pound when properly dry after mid-winter. Four such ears, as an average, on a hill of four stalks, was as much as farmers usually get from a good crop—this would give but 56 to 58 bushels per acre, and he thought the man did well who obtained 40 bushels per acre. At three feet apart, there would be about 1200 more pounds or 20 bushels more per acre, if the ears were equally large.

O. C. CROCKER, of Broome county, had planted a piece of corn (3 acres) on which 60 large loads of rotted manure per acre had been applied, in hills 4 feet by 18 inches, 4 or 5 stalks to a hill, and all was well saved—he had not yet husked it. It was the eight-rowed yellow. On the other hand, T. C. PETERS said his corn on the richest land, had grown so rank and thick, as to yield the least corn. Some mistake was, however, supposed to have been made.

JOHN WADE, of Cobourg, C. W., thought rich land required more seed than poor land. Had sown six bushels of oats per acre. In England, he had known eight bushels sown per acre.

T. C. PETERS said a neighbor of his had sown two bushels of oats per acre, on a black ash swamp of four acres, and he obtained 107 bushels per acre.

MR. WADE sowed three bushels per acre this season, and the oats were laid. Thinks if he had sowed eight bushels, they would have stood up! In reply to a question, he said he sowed $1\frac{1}{2}$ bushels of seed wheat per acre, with the drill. Thinks this equal to 2 bushels sown broadcast.

GRASS AND IRRIGATION.

A. B. DICKINSON alluded to his assertion of last evening, that he could make a heavier growth of grass with clay than with manure. “One load of the poorest clay that you can find in Chemung,” said he “is better than two loads of muck, even on clay land.” “Grass is the all-important crop of the United States—all countries (with the exception of China) where grass don’t grow, become impoverished, and the inhabitants leave them; but all countries where grass grows abundantly, become richer.” On grass land, one load of manure placed on the surface is worth two plowed in—and the clay would be of no benefit if plowed in, (except on sand,) while a load of clay carried on by irrigation, is worth two loads of muck. Irrigation, effected by muddying the water, and continued yearly for five or six years, will give more grass than any manuring, by *mulching the roots*, and making the grass grow stiffer, and solidier. He had a rank growth of meadow this year, but because it did not *stand*, it became really half a ton to a ton less per acre, than some other portions. The running on of the clay must be done late in autumn, in winter, or very early in spring. Fresh soil is plowed up, and the water streams being turned on, carry it off, by stirring, to the grass land. He has found that irrigating with clear water is greatly inferior to this treatment. He has had a little over $4\frac{1}{2}$ tons per acre of hay. SOLOX ROBINSON showed him a bunch of hay, which he had picked up on the Fair ground, consisting of about

two-thirds ox-eye daisy and one-third June grass, but Maj. DICKINSON cast it from him with contempt, and said he would not cut such grass. In answer to a question, he said he could easily and effectually destroy the daisy by deep plowing with the double Michigan plow. Where he cannot irrigate he manures on the surface, when the ground is hard in summer, on the most sterile spots, and not by any means when the soil is wet and soft. He sows of grass seed per acre, one peck of timothy, one of clover, four quarts of red top, two of white clover, and two of blue grass.

THIRD EVENING.

The regular subject for discussion this evening was “The Culture of Wheat; Is it Desirable for the Farmers of New York to Increase the Culture of Wheat; Are there Other Crops that Could be Substituted that would Enable the Farmer to Secure Equal Profits and Preserve his Land in Better Condition?”

LOUIS E. HESTON, of Alabama, Genesee county, N. Y., thought it desirable to increase the cultivation of wheat. Wheat afforded more profit for the labor than other crops. His soil is a clay loam, resting on limestone. He breaks up sod land and sows it to peas; then plows the ground and drills in wheat, two bushels per acre. Since the advent of the midge, he sows little but the Mediterranean variety. Gets about thirty-five bushels per acre. Keeps a large number of sheep. Feeds them with straw and one bushel of oats to one hundred sheep per day. Also feeds them cornstalks and cuts them when he can. Buys bran for his sheep when cheap enough. He seeds down with the wheat; one peck timothy sown in the fall with the wheat, and six quarts of clover per acre sown in the spring. Does not often mow clover; plows it under as manure for wheat. He has one hundred and sixty acres of arable land, and sows about fifty acres of wheat each year and ten acres of corn. Thinks he can continue this without injuring the land.

T. C. PETERS remarked that it was getting to be a common practice in the wheat districts, to sow timothy in the fall and clover in the spring.

MR. BOWEN, of Medina, N. Y., said some of his neighbors had raised thirty-five bushels of Mediterranean wheat after barley. A great breadth of land had been sown to wheat this fall.

GEN. HARMON, of Monroe county, thought it desirable to increase the culture of wheat, because it makes most manure. If grown every third year, with clover and sheep, it improves the land. He did not approve of turning in clover. Would rather let his neighbors eat it of with their sheep for nothing. He turns under a clover sod in July, from seven to eight inches deep, with a Michigan subsoil plow. Sows one and a half bushels of seed per acre. The Mediterranean variety is more extensively grown in his vicinity than all other kinds together. The Dayton variety has yielded very well, but is tender and is apt to sprout in wet harvest weather. Is no better than the Mediterranean—a little whiter. Some farmers that grew it last year have not sown it this fall. The earliest variety that he has grown is the Virginia May, a balck white wheat, but not as white as the Soules. He drills his wheat. The Hessian fly does not affect the Mediterranean as much as it did the Soules, so that they can sow earlier than formerly; say the first week of September. Has not seen the Hessian fly for five years. The midge is the only enemy they have to fight now. Sown in good season, the Mediterranean is but little injured; but when sown as late as October, is as much injured as the Soules.

JOHN WADE, of Cobourg, C. W., thought seed wheat should be brought from the North, as it ripens earlier. Corn from Canada will ripen two weeks earlier. There is no crop more profitable than wheat. Has grown wheat every third year, and his land is better than it was thirty years ago. His rotation is grass land, manured and planted with corn, followed with oats or barley, seeded followed by wheat. In his vicinity they seldom grow Winter wheat. The Fife is the most popular Spring variety. Gets about thirty bushels per acre.

GEN. HARMON had sown three bushels of unleached ashes and four bushels of plaster per acre on his wheat and obtained an increase of four bushels of wheat per acre.

S. WALKRATH, of Canton, St. Lawrence county, said they used to grow wheat in his neighborhood. He had sown wheat for ten years, but the fly took it, and he had abandoned wheat culture. Corn and grass and Spring wheat are now grown, and the land is increasing in fertility. Farmers grow more roots than formerly. Carrots are preferred.

G. MILLER, of Markham, C. W., occupies between three and four hundred acres. He grows about twenty acres of roots every year—principally ruta bagas. After the roots are off, plows the land in the Fall, and cultivates it in the Spring, and sows Spring wheat and seeds down with timothy and clover. Obtains a larger yield of Spring, than Winter wheat. Sows two bushels of Spring wheat per acre. Manures his land for roots. Never applies it to his grass land—likes to plow manure under. Has obtained 333 bushels of wheat from seven bushels of seed—about a bushel per acre—say 56 bushels per acre.

A. B. DICKINSON, of Steuben county, N. Y., said a distinguished agricultural writer had stated that the wheat crop in the State of New-York had fallen off from 35 to 13 bushels per acre, and this statement had been quoted by Prof. Liebig, and passed current in European agricultural literature. Now he wanted to say to persons who might be present from other States, that the State of New York had never seen such crops as had been grown this season, since the year 1816. The census is not reliable. Our soil is not exhausted. He wanted Liebig to know that the statement he quotes is not true. When you have good wheat you seldom have good corn. This year it approached nearer to it than he ever knew before. On limestone land Winter wheat was more profitable than Spring wheat. The largest crop of Spring wheat he had seen was 40 bushels per acre. He had seen a good crop of Winter wheat that yielded 64 bushels per acre. We have a good crop whenever the midge does not destroy it.

SHEEP HUSBANDRY.

The hour devoted to the regular subject having expired, the subject of the previous evening was taken up.

SOLON ROBINSON, of New-York, said Mr. THOMAS BELL, of N. J., usually kept 100 sheep. He buys common sheep of rather large size in the fall, and crosses them with a full-blooded South-Down. The lambs are dropped about the 1st of April. The ewes in the fall cost from \$2.25 to \$3.50 per head. He selects the best, and pays the highest price. He has good August pasture, and keeps the sheep well, so that they go into winter quarters in good condition. In the winter, keeps them in yards with open sheds, 50 in a yard, with feeding racks, and liberty to go under the sheds or lie in the open air, as they see fit. Feeds them almost entirely upon cornstalks, cut up at the ground as soon as the corn is hard enough to ripen in the shock. He does not chaff the cornstalks. The sheep eat off the leaves, and the butts serve for bedding. A few weeks previous to lambing, the ewes that are heavy are drawn out by themselves, and fed with good hay and a little grain. He seldom loses a lamb. By the end of July, he has his lambs, which are strongly marked by the South-Down characteristics, all sent off to the butcher. This year he obtained \$4.75 per head for them. After the lambs are weaned the ewes get fat, and are sold to the butcher in time to take on a new supply. They have just been sold this year, and he netted, from lambs, wool and old sheep, a profit of \$7.50 per head, over the first cost of the sheep. The year before he made a profit of \$7 per head. Besides this, he finds that the sheep are enriching his land.

Mr. PETTIBONE, of Vermont, had no doubt about the profits of a breed of sheep as related. His sales of wool last June from his Spanish Merino flock amounted to over \$2 per head; and his flock for fifteen years had averaged 4½ lbs. of wool, such as this year sold at 50 cents per pound. He had picked out 20 wethers that sheared 8 lbs. per head, and two were sold for mutton at \$3.50 each. He usually selects out eight or ten wethers in the fall, and gives them grain through the winter, and then kills them through the summer for his own use. They dress from 10 to 15 lbs. per quarter, and not unfrequently have 10 or 12 lbs. of tallow in them. When you cannot keep over 50 sheep he would keep the mutton sheep.

A. B. DICKINSON has sheared 11,000 sheep in a season, but would leave every man to decide for himself which was the most profitable sheep for him to keep. If mutton

is the principal object he would keep the big sheep, the larger the better, because the larger the carcass the more the mutton sells for per pound in market, though he would not pay as much for it himself for his own eating. For wool the fine wools are the most profitable. He does not like *gummy* sheep, wants a thick fleece but no gum. Select ewes whose fleeces have little gum, breed from these, and the manufacturers will soon find it out and pay a higher price for it. He washes his sheep in vats. Don't let them run in the dust afterwards, as some persons do in the west on purpose to increase the weight of the fleece. Has tried the experiment and knows that *mature* animals consume food in proportion to their live weight.

ON CROSS BREEDING.

W. C. SPOONER, a well-known veterinary surgeon, has written an interesting article on "Cross Breeding," for a recent *Journal of the Royal Agricultural Society*, from which we make a few extracts:

The maxim "*like begets like*" is a rule having very extensive sway, yet, as propagation is the work of two parents, the respective influence of one or the other is a matter involving considerable diversity of opinion, and prevents anything like a certain conclusion being arrived at. We can not do better than consider, on the very threshold of our subject, the respective influence of either parent; for on this the merits of pure or cross breeding must principally depend. The most probable supposition is, that propagation is done by halves, each parent giving to the offspring the shape of one half of the body. Thus the back, loins, hind-quarters, general shape, skin, and size, follow one parent; and the fore-quarters, head, vital and nervous system, the other: and we may go so far as to add, that the former in the great majority of cases go with the male parent, and the latter with the female. A corroboration of this fact is found in the common system of putting an ordinary mare to a thoroughbred horse; not only does the head of the offspring resemble the dam, but the forelegs likewise, and thus it is fortunately the case that the too-frequently faulty and tottering legs of the sire are not re-produced in the foal, whilst the full thighs and hind-quarters which belong to the blood horse are generally given to the offspring. There is, however, a minority of cases in which the opposite result obtains. That *size* is governed more by the male parent, there is no great difficulty in showing;—familiar examples may be found in the offspring of the pony-mare and the full-sized horse, which considerably exceed the dam in size. Again, in the first cross between the small indigenous ewe and the large ram of another improved breed—the offspring is found to approach in size and shape very much to the ram. The male offspring of the mare also very much resembles both in size and appearance its donkey sire. These are familiar examples of the preponderating influence of the male parent, so far as the external form is considered. We are of the opinion that, in the majority of instances, the size and *contour* in animals is influenced *much more by the male* than the female parent; and, on the other hand, that the constitution, the chest and vital organs, and the forehead generally, more frequently follow the female.

Pure breeding, which, when carried to excess, is called in-and-in breeding, has its advantages as well as its disadvantages. Its friends observe with great

force, that when we have in breeding reached great excellence, it is folly to risk the loss of such excellence by means of crossing; and the more so as the defects of a parent may disappear in the first or second, and reappear in the third or fourth generation; "*breeding back*," as it is commonly termed.

Again, it is urged that great excellencies can only be perpetuated by union with similar excellencies, and beyond all this that there is a certain amount of advantage from an unstained lineage—from the very possession of breed, as it is designated. The objectors to *in-and-in* breeding urge, that by so doing we engender weakness of constitution, diminution of size, hereditary disease, and also a tendency to barrenness; but it is argued in reply to such objections, that they occur from want of sufficient care in weeding out defective animals, whether as respects constitution or size.

found in greater perfection in cattle than in sheep. The Devon and Hereford cattle have descended through many generations in unbroken lines, and owe the perfection which they have attained to careful selection. The Short-horns, although considerably more modern in their origin, and moulded into their present form by a series of successful crosses, have yet been preserved pure with even more rigorous care than the other breeds which we have mentioned. The solid frame and great feeding properties of the Herefords—the quality of beef and richness of cream, as well as working properties of the Devons, are well known and generally appreciated; and yet these qualities are insufficient to resist successfully the encroachments of the Short-horns, whose early maturity and disposition to lay on both flesh and fat, joined with fair milking properties, are such that they outnumber both the other breeds combined.

History fails to supply us with the origin of our various breeds of sheep; but we doubt not that, for many centuries after the time of the Romans in this country, certain distinct breeds were perpetuated, with little improvement and little change. The progenitors of the present Southdown or Sussex breed, inferior as they were to their descendants, ranged probably, in the days of the Romans, over the South Down hill; whilst another breed, now happily extinct, occupied for the most part the hills and downs of Wiltshire and Hampshire. A large, bony, narrow, but active sheep, with large heads, Roman noses, and long curly horns, high in the withers and sharp in the spine, but yet the largest short-woolled breed in existence, were



THE OLD WILTSHIRE SHEEP.

Examples of pure breeding are familiar to us in the admired race-horse, the first-class short-horn, and the Southdown sheep; but, so far as purity of breed alone is considered, the mountain sheep of Wales, the Highland Scotch cattle, and the Shetland or Welch, are equally pure; but whilst the latter have been propagated without care or attention, the former have, by careful selection and rigorous weeding, been considerably enhanced in value. A striking example of long continued pure breeding is afforded by the Leicester flock of Mr. VALENTINE BARFORD, of Foscoote near Towcester, who has the pedigree of his sheep from the day of Bakewell in 1783 to the present time, and since 1810 he has bred entirely from his own flock, sire and dam, without an interchange of male or female from any other flock. He observes, "that his flock being bred from the nearest affinities—commonly called *in-and-in* breeding—has not experienced any of the ill effects ascribed to the practice." His flock is remarkably healthy, and his rams successful, but his sheep are small.

Examples of pure breeding are probably to be

the denizens of these counties during the last century. We annex a portrait of these sheep.

In Wiltshire, although they remained as a pure breed much longer than in Hampshire, yet, as far as can be learnt, they were supplanted by the Southdown, whose superior qualities displaced the old Wiltshire altogether; and we are not aware of any instances in which they were crossed, except for the purpose of crossing them out by using again and again the Sussex ram. Mr. JAMES RAWLENCE of Bulbridge, near Wilton, whose large practical experience, both as sheep-breeder and land-agent, stamps his authority with considerable weight, observes in reply to the author's inquiry, "The last flock of this breed (old Wiltshire) disappeared about the year 1819, and the substitution of the Southdown commenced late in the last century. In many cases Southdown ewes as well as rams were brought out of Sussex to replace the horned flocks, but in numerous instances the two breeds of sheep were crossed, and by the continued use of the Southdown ram the chief characteristics of the horned breed were merged in the Downs. The cause of the very

rapid substitution of the Down for the old Wiltshire may be found in the fact of the large number of enclosures of common fields which then took place. The sturdy horned wether was thoroughly competent to take care of himself when the system of feeding in common prevailed, but when each farmer could keep his flock separate, an animal of superior quality was preferred.⁷¹

In Hampshire, on the other hand, where the same sheep prevailed and were valued for their hardihood, and their powers of travelling far, and folding hard—properties so valuable when the fertility of the light soils was mainly kept up by these useful manure-carriers—these sheep were extensively crossed. Previous to the close of the last century, the Southdown sheep had been greatly improved by careful selection, and the name of the late Mr. ELLMAN was well known for his eminent services in bringing out and improving the latent qualities of this valuable breed. About the beginning of the present century the sheep-breeders of North Hampshire began to bestir themselves, and a few enterprising farmers procured some rams from Sussex, of the Southdown breed. Finding the experiment successful, it was repeated again and again, care being taken to select the largest, coarsest, and blackest-faced rams, which it was thought would suit the coarse sheep with which they had to amalgamate. How many crosses with the pure Sussex were used we cannot ascertain, but enough materially to alter the character of the breed, to cause the horns to disappear, and to change the color of the face from white to black; and, with these changes, to impart a more compact frame, a broader back, rounder barrel, shorter legs, and superior quality altogether, and yet persevering the hardiness and the disposition to make early growth, which the original flock no doubt possessed.

The Hampshire sheep may, therefore, be instanced as an example of successful crossing, and as a proof of what can be done by the male parent, in changing, in very few generations, the character of the original, and yet retaining some of its good qualities, thus forming a breed more intrinsically valuable than either source from whence it is derived. It was found by Mr. LAWES, in his careful and valuable experiments, that the Hampshire sheep, although they were surpassed by the Cotswold, yet exceeded the Southdown in the amount of mutton raised from a given weight of food.

Some thirty years since a Hampshire farmer still living (Mr. JOHN TWYNAM) used the improved Cotswold ram with his Hampshire ewes, and the first cross exhibited a remarkable proof of the preponderating effect of the male. The produce, in size, general appearance, and wool, partook far more of the ram than of the ewe, and it was thought that a most valuable breed had been obtained, which, with the increased size, and weight of fleece, and disposition to fatten of the Cotswold, would combine the hardiness and folding capabilities of the Hampshire. It was found, however, no easy task to perpetuate such a breed after the first cross—the defects of the one parent or the other would appear and reappear in the second and third generation, and it was only by careful weeding that anything like uniformity could be attained.

Various attempts were made some years since to introduce the Merino blood, with the idea that

great benefit would be derived from the increased quantity and the superior fineness of the wool; and undoubtedly, if the carcass of the Southdown and the wool of the Merino could be united in the same animal, the acmé of sheep-breeding would be attained. It was found, however, that the quality of the wool was not a sufficient recompense for the want of early maturity and feeding properties; and at length, after many trials, the Merinos disappeared by the continued use of other rams. It is very possible, however, that they may have left behind them some improvement of the fleece, for it is equally difficult in breeding to get rid of a virtue and to wash out a stain.

There are few districts in England in which some advantage has not been derived from the cross breeding of sheep. Even the little mountain sheep of Wales has been greatly improved by the Cheviot ram, a larger, superior, but still a mountain sheep. At the same time the Cheviots themselves have been improved for the butcher by crosses with the Leicester, the Cotswold, and the Down. The progeny have been increased in size, and fattened more readily. This breed has also been considerably improved by selection.

The testimony in favor of the advantages to be derived from the cross breeding of sheep when the purpose sought for is limited to the first cross is so strong that, however forcible may be the arguments of the advocates of pure breeding with reference to stock sheep, they sink altogether in weight when sheep for the butcher are concerned.

We think, therefore, we are justified in coming to the following conclusions:

1st. That there is a direct pecuniary advantage in judicious cross breeding; that increased size, a disposition to fatten, and early maturity are thereby induced.

2nd. That whilst this may be caused for the most part by the very fact of crossing, yet it is principally due to the superior influence of the male over the size and external appearance of the offspring; so that it is desirable, for the purposes of the butcher, that the male should be of a larger frame than the female, and should excel in those peculiarities we are desirous of reproducing.

3rd. Although in the crossing of sheep for the purpose of the butcher, it is generally advisable to use males of a larger breed, provided they possess a disposition to fatten, yet, in such cases, it is of importance that the *pelvis* of the female should be wide and capacious, so that no injury should arise in lambing, in consequence of the increased size of the heads of the lambs. The shape of the ram's head should be studied for the same reason. In crossing, however, for the purpose of establishing a new breed, the size of the male must give way to other more important considerations; although it will still be desirable to use a large female of the breed which we seek to improve. Thus the Southdowns have vastly improved the larger Hampshires, and the Leicester the huge Lincolns and the Cotswold.

4th. Although the benefits are most evident in the first cross, after which, from pairing the cross-bred animals, the defects of one breed or the other, or the incongruities of both, are perpetually breaking out, yet, unless the characteristics and conformation of the two breeds are altogether averse to

each other, nature opposes no barrier to their successful admixture; so that, in the course of time, by the aid of selection and careful weeding, it is practicable to establish a new breed altogether. This, in fact, has been the history of our principal breeds.

The Leicester was notoriously a cross of various breeds in the first instance, although the sources which supplied the cross is a secret buried in the "tomb of the Capulets." The Cotswold has been crossed and improved by the Leicester; the Lincoln, and indeed all the long-woolled breed, have been similarly treated. Most of the mountain breeds have received a dash of better blood, and the short-woolled sheep have been also generally so served. The Hampshire and the present Wiltshire Downs have been extensively crossed; the friends of the Shropshire cannot deny the "soft impeachment;" and the old black-faced Norfolks have been pretty well crossed out altogether. The Southdown is perhaps one of the purest breeds we have. No one asserts that the immense improvement of this breed by ELLMAN was due to any crossing.

PRESERVING SWEET POTATOES.

EDS. GEN. FARMER:—As your journal appears to be thoroughly devoted to collecting and disseminating information upon agricultural and kindred subjects, will you honor me with a corner to tell something that I know?

Sometime last spring, you published an article upon the subject of preserving sweet potatoes, which was doubtless extensively read, as the subject has been much experimented upon, and is one of very great interest as well to consumers as producers. I belong to the former class. The plan suggested by your correspondent was to pack the potatoes in layers, filling in between with dust or pulverized soil, taken from the highway. I do not deny but that this method may answer (other matters having been attended to), but without proper previous care, I do not believe it will; and *with proper previous care, I know they can be kept without such packing.* I forbear argument upon the difficulty of procuring at all times, or whenever required, the necessary supply of such "dust" for packing purposes, even in the country, or upon the impossibility of procuring it in the city, where the article of sweet potatoes in our latitude is very largely consumed.

The character of the soil upon which these potatoes are cultivated may have its influence upon this question. I am not competent to discuss that. I believe, however, it is agreed that a sandy soil is best adapted to their culture, and produces the best crop, so far as *quality* is concerned.

After the potato has been produced, the first care is, that it be taken out of the ground *before there has been any frost*; second, that it be transferred at once to the place where it is to await consumption, and third, that it be kept in a dry atmosphere, at a temperature considerably above the freezing point.

In the fall of 1858, I procured a supply of six barrels for the use of my own family. Of these, I presume I lost by decay less than half a bushel, and the last of them came upon my table on the 6th of August, 1859, entirely sound, except that most

of them had become somewhat pithy. In the fall of '59, I procured another supply, and as yet they are as good as when first housed, none having been lost by decay. In both these instances, the above precautions were employed, and I believe the result attributable to those precautions. These are *but two* tests by the same experiment, but as they have produced the *same result*, they are entitled to some weight.

That the first and third measures of precaution mentioned are indispensable, seems to me self-evident. As to the second, I state these facts: The potatoes gathered and housed, either in boxes, barrels or heaps, will sweat, and in a few days the whole mass will be saturated, and in a few days more it will be entirely dry again, without any assistance, and without any injury; but after this process has been gone through with, a very slight disturbance of the mass, especially so much as is incident to their transportation to market, will induce a second sweating, to the destruction of the potato. My supply of 1857 underwent this second sweating, and I lost largely upon them; but those of '58 and '59 were protected against it. I leave the *philosophy* of this matter to others, merely stating the *facts* as to means and results. I believe the precautions mentioned were the reasons of my success. There must of course be a limit to that liability to a second sweating, which is produced by the removal or jostling spoken of, but that must be hereafter ascertained. I hope this communication will call out the observations of others upon this question.

Now, Messrs. EDITORS, as you frequently publish plans and descriptions of model farm buildings in your journal, if you have, or if any of your correspondents would suggest, a plan combining a hen house with the house part of a hog pen (or distinct plans of each), which is considered desirable, you or they will confer a great favor upon J. O., JR.

Philadelphia, Pa., Feb. 22 1860.

A MODEL MACADAMIZED ROAD.

THE *Homestead* describes the construction of what it terms a "Model Road," now being made in the Park at Hartford, Ct.:

This road is intended for a carriage drive and foot path, both, and is constructed thus: The whole road bed is dug out on an average 14 inches deep about, it being 8 inches deep on the side and 18 inches in the middle. In the lowest part, 6 inches lower, is laid a four-inch tile drain, which is covered with gravel. Then the road bed is laid with large rough stone, as large as can be conveniently loaded by hand into a cart. These are laid a foot deep in the middle, and so arranged as to protect the tile, and to cover the surface, which is clay, and made land at that, with a substantial pavement, and also to afford the most perfect and rapid drainage under the centre of the road. These stones, we may remark, cost less than half as much as the common trap broken up for macadamizing. Now over this bed of large stones go four to five inches of stone of the size of one's fist, such as is used in our common streets to macadamize, as it is called, though poor McADAM would blush to hear his name so misapplied.

This layer is crowning—three to four inches higher in the middle than on the sides. Then comes some two inches of coarse, screened flint gravel, say of the size of hickory nuts. Each of these layers is thoroughly rolled and packed, and finally a dressing of fine flint gravel one inch thick is applied and rolled firm, the crowning being maintained as stated, not very bold, but about an inch and a half to ten feet in the width. This road will need no patching or mending for years.

If this road does not need a good deal of "patching or mending" in less than ten years, we are much mistaken. The stones "of the size of one's fist" will assuredly work up through the gravel and render the road rough and uneven. This has been the result on all the English roads. All the gravel and broken stores that can be put on the top of the larger stones will not keep them down. This is now well understood, and the English road-masters, when these stones heave up their hated heads, have them taken up with a pick and broken.

CHOICE OF A BREED OF CATTLE.

At the last monthly meeting of the Newcastle (England) Club Mr. HEDLEY read a paper on cattle, from which we make the following extract:—"We now arrive at the third part of our subject, namely, what kind of animals to select to be most remunerative to the graziers of this country? In my close identification with fat cattle for several years I have always found that the best animals have the most massive heads, most capacious chests, and strongest spines. I have, therefore, evolved a few rules to go by in the purchase of lean ones, and scarcely with one exception I have found them to be applicable. The head of any of our bovine races ought to have the first consideration; that is the true index to the vital acumen, and even bodily construction; and will be found to foreshadow all of good or bad that may be accomplished. Thus an animal possessed of a broad, full, spacious skull and strong evenly-bent defective horns will be found to have a thick neck at the base, wide thorax, and strong nervous system; while one with long, narrow contracted skull, and puny, abruptly bent horns, will be characterized by weakness, wildness, and slowness to fatten; a small, dull, sunken eye betokens hardness of touch and inaptitude to fatten; and a bright, large, open soft eye, *vice versa*; a starting, dark, fiery eye often accompanies a small forehead and hereditary wildness, and when combined with small drooping horns, and a chin with no loose skin hanging from it, is a very despicable animal indeed, weak in constitution, predisposed to lung disease, and sterile in fattening propensities. Animals with weakly-formed heads, have always small appetites, often narrow shoulders, and small loins, and the width of these parts will always be found in an exact ratio with the strength of the head. The nose, instead of being long and fine, as Virgil, Aristotle, and several other naturalists recommend it, ought to be in my opinion thick, strong, and near the ear as possible, if only in proportion to the size of the frame. Thickness of nose and thickness of chest are often twins, and so are thin, meagre, irregular noses and consumption. Small, snipy noses oft snift the air into frames of small ca-

pacities, and are joined to mouths that can crop but very small morsels at a time. These observations I have found to be applicable to any of the kinds of cattle shown at Newcastle market, but besides the shapes of animals, the age and class must always have especial consideration, and be adapted according to food and situation; otherwise, the realization of remunerative profits will be uncertain. In warm sheltered valleys, abounding with rich, fine, succulent herbage, I do not think there is any class of animals whatever can equal the Shorthorns for growing and making pay, and most assuredly not any for Turnips in folds in winter. I would choose for Grass in spring heifers or steers quite filled up with lean flesh, and not less than two and a half or three years old; and for Turnips in winter, the same class of animals as regards freshness, but from three to four years old, or otherwise large stirks possessing all their calf life; such stirks are decidedly preferable to small slender two-year-olds for Turnips, and do infinitely better for the grazer on the same amount of food. For seven-eighths of the summer pasturage of England, however, the Shorthorns are found to be too good, and when judiciously alloyed with the Irish and Galloways the produce has been found for several years to supersede the Shorthorns in their purity. The half Irish breed excels the half Galloway on altitudes dry and arid, and the latter the former in marshes low and humid. The Irish ox is the truest type of the old breed, the stripe along the back not having yet disappeared. The Galloways are the hardiest race known, and the only one that appears quite invulnerable to lung diseases, and when well crossed with soft-backed Shorthorns are better for Turnips than the half Irish, and nearly equal to the Shorthorns themselves; but the half Irish as a body quite excel the half Galloways for Grass, being often of more suitable ages, and hence easier fattened.

RATS—POTATO BUG.—In reply to D. N. D. in the October number of the *Genesee Farmer* for 1860—in relation to driving and keeping Rats from corn-crisbs and granaries. Place some gas tar in them and daub some in their holes, and they will leave the premises at once. The tar can be obtained at any place where gas is manufactured for burning, at about six cents per gallon, and a gallon will drive them from the premises. As to the Potato Bug I have had them on my potatoes in dry seasons several times, and I thought to the detriment of the crop. I sowed slacked lime on my potatoes and they left in 24 hours; try it, it will not cost much.—J. K. JENKINS.

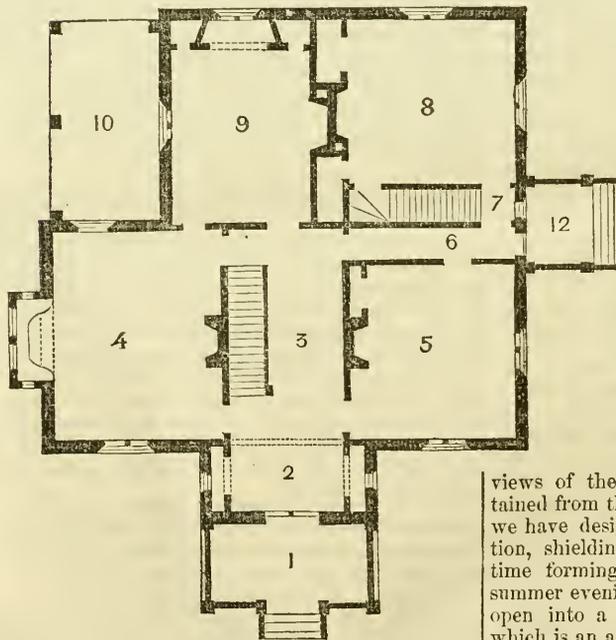
SOWING PEAS IN THE AUTUMN.—COBBETT, in his *American Gardener*, recommends sowing early peas in the fall, and mentions the following fact:

"Upon a spot, where I saved peas for seed last year, some that was left in a lock of hanlu, at the harvesting, and that lay on the dry ground till the land was plowed late in November, came up, in the spring, the moment the frost was out of the ground, and they were in bloom full *fifteen days* earlier than those sown in the same field as early as possible in the spring."

Will our readers favor us with their experience on this subject?



DESIGN FOR A TUDOR COTTAGE.



PLAN OF GROUND FLOOR.

TUDOR COTTAGE.

WE here present a design for a country or suburban cottage of stone.

The situation most suitable for a dwelling of this class would be on an estate where two or three acres could be devoted to pleasure-grounds alone.

In this case, we should have the lawn—somewhat undulating, if possible—surround two or three sides of the house, leaving the fourth for domestic purposes, containing kitchen garden, orchards, and the stables and other outbuildings, and shielded from public view by plantations of trees and shrubbery. On the lawn, which should be surrounded by a border of irregular plantations—with the exception of openings left here and there for agreeable distant views—we would plant large trees and shrubs, singly and in groups, and so plant them as to bring into view from the principal points pleasing vistas, and hide those objects which are disagreeable to the eye.

We have supposed that the best views of the surrounding landscape may be obtained from the front entrance to the house, hence we have designed the arcade to occupy that position, shielding the front doors, and at the same time forming a very pleasant lounging place or summer evening retreat. The double glazed doors open into a vestibule, No. 2, on either side of which is an arched recess for clothing, and in front a Gothic arch divides it from the hall proper, No. 3, which is 10 feet wide and 18 feet 6 inches long. On the left, two doors open into the drawing room, No. 4, measuring 15 feet by 18 feet 6 inches, and lighted by a mullioned window in front, a large bay on the side, and a window in the rear reaching to the floor, and opening upon a veranda, No. 10. At the end of the hall, a door leads into the

library, No. 9, 12 by 15 feet, containing two closets with a recessed window between. No. 5 is the dining-room 15 feet square, and opening upon a back entry No. 6; at No. 7 are the back stairs above and below. No. 8 is the kitchen, 14 feet 6 inches by 15 feet, containing two large closets, in one of which is a dumb waiter from the cellar kitchen. No. 12 is a portico over the side entrance. In the cellar are cellar kitchen and scullery under No. 8, drying room under No. 9, store rooms under the dining room, and common cellar under the hall and parlors. The second floor contains four large chambers with closets, a sewing room over the vestibule and hall, and a bathing room over the back entry.

CONSTRUCTION.—We have designed this cottage to be built of rough stone and covered with cement, or with a wash of some neutral tint. The trimmings to be of freestone, or any dark stone contrasting in color with the walls, and the details of wood painted to correspond. The interior finish should be of a plain, simple character, corresponding in style with the exterior.

The cost of this cottage will depend more upon the locality than a frame house. In situations where stone of a suitable quality is plenty, it may be built and finished throughout for \$5,000.

Lynn, Mass.

G. E. HARNEY.

THE DOMESTIC TURKEY—PECULIAR HABITS, etc.

THE domestic Turkey, in some respects, is the most valuable bird that has a place in the farmer's poultry-yard. It is large, comely in appearance, and its flesh is considered one of our richest dainties. It forms the standing dish at our Thanksgiving and Christmas dinners.

To the careful observer, its habits are interesting, notwithstanding they are somewhat eccentric; and, what is greatly in its favor, the more we study its habits the more we are pleased with it. There is one trait in the male that is never unobserved by his female companion, and when calling together their broods of young, may sometimes be heard half a mile or more. It is wonderful to observe how the little progeny will respond to his voice, if at a distance of twenty or thirty rods in the rear, as led by him in their daily explorations for food—and especially at the close of day, when returning to their usual place of rest at night. It can not be denied, however, that in this latter respect turkeys are deficient in punctuality, and not unfrequently are overtaken by night before reaching home. If so, they make an encampment wherever they happen to be. But this is not the result of indifference to home, as in the case of the tippler and the gambler, so much as to a defect in the science of geometry, not remembering how far they have wandered from it; or to a deficiency of astronomical observation, not having observed how rapidly the time had sped.

The well-fed male turkey, especially if rendered social by a numerous family of female attendants, is a very important character about the homestead. No one attracts more notice than his lordship. No one is more tenacious of his rights, or more complacent in the enjoyment of them. He is truly an original character, but has numerous imitators. The incessant pompous display of his plumage has

ever been deemed an appropriate counterpart of the human being which struts and seeks by an ostentatious display of exterior embellishments to attract attention beyond any claims founded on intrinsic merit. We can not fail to be amused on seeing either of these animals of the masculine gender thus struggling for the ascendancy; but we cherish less respect for the one in broadcloth, than for his prototype in feathers. Indeed, the latter, although not celebrated for his mental endowments, possesses more intelligence than is usually attributed to him; and moreover, as the representative of his family, occupies no inferior rank in respectability or the elements of being useful. He is led by instinct, if not by reason, to be a pattern of devotion to the safety of the community of which he is the legitimate head. He watches over the turkey chicks with the assiduity of the most faithful shepherd when guarding his flocks. He will never leave them, and is apparently unmindful of his own wants so long as they require his watchful care. On one occasion, a flock of twenty-odd more than half-grown young turkeys with the old ones were overtaken by night before reaching home. The consequence was, they roosted on the fence adjoining a cornfield. In the night, eight of the young brood were killed by we know not what, dropped on the ground. For hours in the morning the living ones remained on the spot around those that had been killed, the old gobbler and his mates making the most piteous lamentations till we were thus drawn thither. For a long time afterward they were not seen to go near the place of this calamity, but daily went in another direction, which previously they had not done.

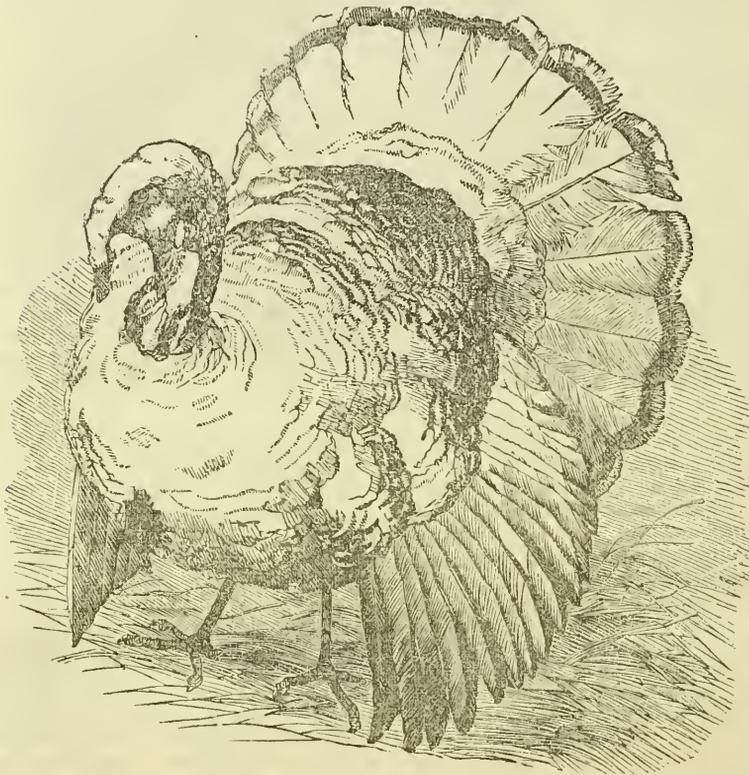
It is frequently said that turkeys are very stupid. We were formerly of that opinion; but on better acquaintance with them, we have become somewhat skeptical in regard to such opinion. If they possess naught of what is usually termed reason, they have a kind of cunning much resembling it. The hen turkeys are noted for stealing away their nests; and if they do it, no little difficulty is experienced in finding the place of concealment. If followed, the probability is, should they perceive your intention, they will wander about for hours till you become wearied and leave them, when they will go to their nests and deposit their eggs. On one occasion, it became apparent that a favorite hen of ours daily left the yard by flying over the fence, to visit her nest. It was usually about 11 o'clock in the morning, and after being absent one or two hours, would return and join the flock. Her direction was toward a small wood and dense undergrowth of brush. This we noticed for several days in succession. Her course was always in the same direction. Every now and then she would stop, reach upward her head, and look around to see if she was observed. At length we concluded to follow her, at a distance of thirty rods or so, keeping behind trees; but after a while she caught a glimpse of us, and, although at such a distance, then she turned about and came back nearly in the same path, and without enabling us to be the wiser for our labor. This she did several times with similar results, and at last we gave up the attempt.

A few instances may be related, illustrating the fidelity of the male in watching over the young

brood. Our practice is, in a few days after the process of hatching is completed, to put the hens into a large coop or pen of one or two rods in extent, with one side at least open with slats or stakes, to admit ingress and egress of the chicks, while their mothers, naturally great gossips, are restrained from long peregrinations, too toilsome and hazardous for the tender offspring. On the outside and in the vicinity of the pen, the cock spends his days in becoming assiduous to the infant family, and his nights in roosting close by it.

them his broad wings, and if a hawk is seen, the same is done to shelter them from his marauding descent upon them; if they have become too large to be thus sheltered, they collect around him as close as possible, while his gorgeous crest rises above them, not more captivating and alluring to an enemy than the expressive banner which floats in the breeze over the well-mounted and strongly-manned fort.

We annex the following anecdote of a cock turkey we once possessed. Among a brood there was one male, a long legged fellow of a most unique appearance. During the period of incubation, or as soon as one of the hens began to set—which she, seeming to know the old fellow's propensity, was very careful to manage in a very private and secret manner—he began to grow uneasy, and mounted the fences, watching for the place of her concealment, which he usually discovered the first or second day; when he, by virtue of his authority as one of the lords of creation, immediately took possession of the nest, and from that time forward, till the period of hatching, went on with the regular process, when he brought out his brood and duly carried them forward to maturity, when the hen, poor simple wife, was allowed to trudge along at a respectable distance, in the true after-honeymoon style.



A DOMESTIC TURKEY COCK.

Quickly does it happen that they become more fond of his society than of their pent-up mother's. As soon as his supremacy over them is well understood, and their strength admits of it, he will abduct them, no one can guess how far, as stealthily as the unprincipled swain runs off with his improvident lass for a clandestine marriage. Search for the missing ones is usually as unsuccessful in one case as in the other. However, Mr. Gobbler is a far better protector of his treasure than the speculating lover, who steals his wife from her fond parents. The former never abandons his charge; whereas the latter frequently does, leaving his deceived fair one, after being robbed of all she possessed, to return in disgrace and poverty to her broken-hearted family. It is amusing to see how faithfully the cock turkey, when thus the sole guardian of his children, will seek to provide them with food and to protect them from injury. In the night and in stormy weather, he spreads over

Another instance. It appears that a male turkey kept on the farm of a gentleman in Rhode Island resolved on a revolution in turkeyism. Accordingly, he drove from the nest one of his better halves, where there were twenty-one eggs, and performed the duties of incubation himself. The duties were so well performed that eighteen young turkeys duly made their appearance. Nor was this all. He became so pleased with the female cares of domestic life that he spurned all interference from the gentler sex. When his own brood was fairly out of the shell, and finding that others of the household had been occupied in the same labor so that there is in all sixty-seven young turkeys to be taken care of, he determined to have undivided dominion in the domestic realms of turkeydom. This he did by turning the entire female fraternity out of doors, and taking the whole care of the nursery upon himself.

C. N. BEMENT.



FRUIT-GROWER'S SOCIETY OF WESTERN NEW-YORK

The Fruit-Grower's Society of Western New-York was held at Rochester, September 25th, 1860, at 11 A. M.

The exhibition of fruit, which was very fine indeed, was made in conjunction with that of the Genesee Valley Horticultural Society, and attracted a great deal of attention, even from persons as conversant with excellent fruit culture as are the residents of the vicinity of Rochester.

The display of grapes was finer than ever before made in Western New-York, especially of Delaware, Diana, Concord, Rebecca, Hartford Prolific, &c., &c., the comments upon which will be found in their place in these discussions.

After the usual formalities of organization, the morning session was opened by the discussion of the question of "The Adaptation of Standard or Dwarf Pears to Different Soils in our Climate."

Col. HODGE, of Erie county, thought this question to be one of a great deal of importance, particularly to all pear cultivators. One great cause of the decided difference between cultivators in their success, is on account of the ill-adaptation of the trees which are set out to the soil upon which they are planted. For instance, the owner of a fine farm, with a very light sandy or gravelly soil, sets out an orchard of pears on quince, and the result is that he is probably unsuccessful in large profits. Another farmer, with a stiffer mixture of clay with sand, or of a heavier gravelly loam, neither too dry nor too wet, plants his Dwarf orchard, and they succeed admirably. At Buffalo, the opinion prevails that Dwarf Pear trees upon a combination of clay and loam succeed admirably, and cultivators in Erie county have had full opportunity to test the results. The opinion, also, is that Standard Pears succeed best upon deep sandy soils, where the roots can penetrate several feet into the sub-soil.

D. W. BEADLE, of Canada West, said: We never fail upon our soil in growing good Dwarf Pears, although the soil is not as heavy as might seem to be necessary from Col. Hodge's remarks. I never thought that ours was a soil which was clayey; we rather call it sandy. With us we find that the Orange Quince bush really grows much finer, and produces better fruit, upon a somewhat clayey, heavy soil. The stock upon which Pear trees are budded in order to dwarf them, is the Angers Quince, and a slightly different habit—not to be so much affected as the other by differences in the composition of soils. The only real enemy which we have in Canada to Pear culture, either on Standards or Dwarfs, is the disease which we in our ignorance call fire blight.

Col. HODGE was drawn up by Dr. BEADLE's remarks, to explain that in his remarks as to sandy or clay soils, light or heavy, he spoke of the two extremes of soil. The soil at St. Catherine's is neither extreme; should call it a sandy loam, neither extremely wet nor extremely dry, and consequently was well adapted to the culture of either Standards or Dwarfs. Would say that the trees in Mr. BEADLE's plantation are very fine, and the result in the growth of Standards or Dwarfs is not much different. Would repeat, however, his meaning in previous remarks, and that was, that the extremes of clayey and sandy soils differed in adaptation to Dwarfs and Standard trees.

E. MOODY, of Niagara county, stated that upon his farm Dwarfs as a whole did not succeed. Most of it is a dry, gravelly soil, commonly known south of Lake Ontario as the "ridge soil," and Standards succeed first rate. Raises very fine Bartlett's on Standard, and excellent Virgalien on Standard. Has some pretty stiff clay soil where the Dwarfs do very well. It is of the character called a "retentive soil." Had found that upon heavy soils the Standards had a greater tendency to crack their fruit than the Dwarfs had.

P. BARRY, of Monroe county, remarked that the Dwarf Pear must have a good deep rich soil and good cultivation, in order to succeed very well. It is certain that the Standard will succeed, both as to growth and fruiting, in a soil where the Dwarf will not, because the Standard can be persuaded to grow upon a poorer, lighter soil. Would rather lay it down as a rule that all Pear trees require a good soil and good treatment. Our trees of both descriptions are standing in a soil which, although quite light, is called by most a sandy loam; and I have seen orchards doing equally well upon similar soil in other places. They did not have great enriching at any one time; but we give to them an annual manuring upon the surface, or a compost adapted to the nature of the soil, and lightly spaded in. On a small scale, the Dwarf Pear can be grown well upon any soil, or in any locality; because if too sandy, it can be mixed with loam or clay, and if too clayey, the addition of sand will remedy the defect; but when we come to speak of the cultivation of Pear trees upon a large scale, for profit, where these amendments cannot easily be made to the quality, I would by no means advise the Dwarf, or any other tree, to be planted upon a dry, light, gravelly, poor soil. The soil must be a dry soil any way—that is a requisite never to be omitted—but must be a dry substantial loam, like what our farmers here call their best wheat soils. It is difficult to classify soils; there are so many grades and such imperceptible differences, which yet affect growth, but the skill and enterprise of cultivators of our various fruits have overcome what would generally have been termed impossibilities. Still, if any farmer has light blowing sand upon one part of his premises, or springy wet soil upon another, I would not plant any sort of Pears upon either of them, any way. As to the adaptation of sorts to Dwarf, which varieties succeed best as Dwarfs, much depends on the selection of varieties. Every year confirms the opinion that Louise Bonne de Jersey is one of the very best sorts for Dwarfs. So also is Duchesse d'Angouleme. These two in particular will take the lead of all others. They bear good crops of fruit every year. They are long-lived, grow thriftily, and are sure to bring in a profit to the cultivator. For permanent orchards, a Society like this must always recommend such varieties as we know live to a good age, and are profitable in good soils generally. If I were to add, would also mention Beurre Diel and Beurre d'Anjou.

H. N. LANGWORTHY, of Monroe county, could speak from his experience as to Louise Bonne, Bartlett, &c., upon a light sandy soil, among Peach trees. Had found that such land was too light, and that the trees did not grow well the first year, &c.; but that this year they grew well, some making growth of over two feet, and perfected large, fine fruit, and a large number also.

T. C. MAXWELL, of Ontario county, spoke of his own cultivation being upon a rather heavy soil, and he had found the trees to grow well, and so does the fruit. Agreed with Mr. BARRY, and did not think the same opinions could be better expressed than had been done by Mr. BARRY.

F. W. LAY, of Monroe county, has an orchard of three year old trees, which he planted in such locality that the long rows of trees run through mixed soils, and much varied in running from one soil to another. Desired to add Belle Lucrative to the sorts which are valuable on Quince. Bartlett with me on a light soil succeeds well, upon the lightest soil where I give it good cultivation, and so also does the Flemish Beauty to some extent.

Mr. MOONY spoke of the comparative liability of Standards to suffer from blight upon one soil than another; for he thought them not as liable to blight upon light soils. On my place, in Niagara county, have never seen a Standard tree with fire-blight—nor have I ever had a cracked Virgalien. As to Mr. BARRY's soil, I would not call it a light soil; it is a mixture, a part of which sticks to the boots of those walking through it after a heavy rain; should call it a clayey loam. My Standard Virga-

lieus, which have been so successful on my light porous soil, are now over ten years old, and have been bearing fine crops for five or six years. In our county, it cracks badly upon a heavy soil, with hard and retentive sub-soil not undrained.

Mr. LANGWORTHY thought that in the cultivation of Pears for profit, it is desirable for the varieties to have a succession of ripening periods that should not interfere with each other nor with peaches. They would then be profitable, and not being in competition with each other or with other fruits, would bring very good prices in the market. On my soil, (before described,) Virgalieu does not either crack its fruit or blight the tree, and I have not one case of tree blight.

GEO. ELLWANGER, of Monroe county, says that the Virgalieu fruit has never been so large as this year in our grounds, both as Standards and Dwarfs. The fruit, however, is larger upon Standards trained as pyramids than on Dwarfs. Considers it more disposed to crack upon a light, dry soil, than where they have a heavy clay sub-soil.

C. L. HOAG, of Niagara county: Have looked carefully at this matter of the Virgalieu, and from all that I have seen, could say that it cracks less in light than heavy soils. One orchard of Standards planted in a clayey soil, which, although easily drained, had produced hardly a perfect specimen in the whole orchard. In a location not 50 rods distant, upon soil a little heavier, the fruit was badly spotted; while upon a sandy portion of the orchard, it was not cracked at all. The Dwarf Virgalieu did not spot as badly as the Standard. Would confirm what Mr. LAY says—Belle Lucrative is a most splendid pear. What Mr. BARRY says as to good cultivation, but not too rich, is exactly my experience. Once saw a man who wanted to have his trees grow finely, put a wagon load of manure around each tree, enough to kill any tree, and then complain that Dwarf Pear trees would not succeed well with him!

Mr. BARRY here again remarked in regard to the differences in soils. His land is a sandy loam, and the variations in different parts of the plantation are where the clay or sand predominates. Sandy soils are very fertile, but the Pear will not hold out in them for more than eight or ten years. The Pear needs a good loam. It is not safe to draw conclusions from one or two cases as to the causes of Virgalieu cracking or spotting. Two years ago, the only place where it was found was the heavy soil. Thinks the spotting upon the Pear is a fungous growth, dependant upon atmospheric causes. Last year our Virgalieus did not crack at all, but spotted badly. These spots developed their fungous growth in the barrels while on the way to market, and the Pears were worthless upon their reaching the market. The Virgalieu is fairer than usual this season.

AFTERNOON SESSION.

The first question taken up in the afternoon session was: "Granting that the Louise Bonne de Jersey and Duchesse d'Angouleme are the Best Two, which Variety of Pear Stands Third for Profitable Cultivation on the Quince?" It was explained that this was a pure question of dollars and cents—a money question.

Mr. HOAG wanted to put Seckel, while

H. E. HOOKER, of Monroe county, would hardly put Seckel as third, while he would surely make it one of twelve varieties. Thinks Flemish Beauty and Bartlett double worked would prove a good investment, and produce good returns.

Mr. HOPKINS, of Tompkins county, thought very highly of Vicar of Winkfield, taking into account its time of ripening. The fine growing habit of the tree, and its excellent bearing qualities, would cause me to select it as the third. It always brings a good price, because of its ripening at a time when few competing fruits are in market, and there is a great demand for fine specimens.

Mr. ELLWANGER spoke of Stevens' Genesee Pear as this year being extremely fine; stating that for market no variety will bring a higher price, when well grown and well ripened. It is a truly beautiful fruit, although it may be not of as high a flavor as the Bartlett. Spoke of the Vicar of Winkfield as being variable in character of the fruit according to the seasons. It has one desirable quality—that of durability upon the Quince stock. It keeps up its vigor well. Our trees 12 to 15 years old bear

annually very fine crops. The American Pomological Society, which had previously placed it on the rejected list because it frequently rotted at the core before ripe, took it from that rejected list this year.

Mr. HOAG spoke of Stevens' Genesee as having done very well this season. The fruit seemed sometimes a little variable; but that was because of too late picking. You should pick this sort early, when you first see indications of a change in color.

The next subject in the afternoon was "Grapes; Which Among the New Hardy Varieties have Proved to be Adapted to our Climate?"

P. BARRY thought more highly of the Delaware this year than ever before. In favorable situations and under good treatment, it is *very* fruitful. It is not hard of cultivation, and it is a fine, truly hardy open air grape. We had one vine on the east end of our dwelling-house, where justice was not done to it as to soil, and yet it has made a very fine growth. The vine is only three years old, yet it has borne quite a large crop this year upon the old wood. The shoots of this year are long, strong, and well ripened. In our open vineyard the wood of the vines has not yet (25th September) ripened up as well. Requires good treatment to ripen up the wood well; but when well ripened, nothing can be finer. Our Delaware fruit was ripe enough to eat two weeks ago. Mr. B. has also cultivated the Hartford Prolific to a considerable extent, and is quite pleased with it. The bunches have been generally complained of as very loose; but with us they are reasonably compact, and the berries are sweet and good. It is much better in our grounds than I have seen it elsewhere; because it is a vigorous vine, a strong grower, with most luxuriant foliage, and well deserves its name of Prolific. With us it grows tied up to a stake, upon the south side of one of our hills, and in the basin at the bottom of the declivity, where the wash from the hill has made the soil rich and nice. The Concord also, with Mr. B., ripens perfectly every year; and under all exposures is a very hardy vine. On stakes in our open vineyard, the fruit is now quite ripe; much riper than the Isabella is. The Diana, with Mr. B., is one of our most valuable grapes. When young, the vine is a healthy, strong, and thrifty grower; and it bears fruit well when it acquires age. The Diana is certainly a variety which we can always rely upon here, under ordinarily good treatment. The Rebecca has commonly been called a delicate grape, except under particular treatment; for instance, trained up handsomely upon a wall. In my opinion, no American grape is equal to it in high flavor, although the bunches are small. It will be found a very valuable garden grape; although not a grape for the vineyard, nor for extensive cultivation. In Hartford Prolific, much of the looseness or closeness of the bunch depends upon the mode of pruning. This grape is said to fall badly from the bunches as soon as ripe, and with me the berries did fall last year; but this year they have ripened up finely, and with no signs of falling at all.

H. E. HOOKER, of Monroe county, is cultivating the Delaware grape, both upon an open trellis and trained upon the south side of a building, and has found a very few days difference between the Hartford Prolific and the Delaware as to the time of ripening. Hartford Prolific is not as good flavored a grape as the Delaware; yet in size of the fruit and in vigor of growth I esteem it highly. While there are few grounds which have grapes as early as people desire, this sort is *sure* to ripen, and to be as good as the Isabella at a time when the Isabella is not yet colored. The Hartford Prolific is an earlier grape than the Concord, and so is the Delaware an earlier variety. I think that the Delaware is our very best grape. I have fruited it on my place, and have uniformly found it very productive. With fair culture it fruits well, and is a fine sizeable grape; while for home use, the Delaware is beyond comparison better than the Concord. Concord and Diana, with me, ripen up their fruit together; a showy grape, and uniformly hardy. Rebecca, with me, has not grown well enough. It does not make very strong wood upon my place, and the foliage sunburns. As to which among the new hardy grapes I would recommend, I say Hartford Prolific, Concord, Diana, and above all, the Delaware. The Delaware, with me, is entirely and perfectly hardy; even the lateral shoots are hardy, and no part of a well cultivated vine is ever killed back. For training upon a trellis, I would recommend planting

the Delaware; would advise every man to plant the Delaware grape vine, because the taste of the Delaware would excite a demand for the delicious fruit, and get great prices. The Hartford Prolific grape I mentioned, because it is our earliest good grape, and gets used up quick.

Mr. CRAINE, of Niagara county, had two Delaware vines planted out in his grounds; one against the east end of his house, and the other trained upon an open trellis, thus having an exposure same as the vines in a vineyard have. The third year had a good growth of wood, and we have seventy-five fine clusters of most delicious fruit, which ripened up early and well. Should not hesitate a single moment in planting the Delaware upon a larger scale than anything else. Have cultivated the Hartford Prolific grape for four or five years, and can most fully endorse what Mr. BARRY has said. It certainly ripens four weeks earlier than Isabella, and sometimes more. Hartford Prolific upon the 1st of September (nearly a month ago,) was ripe as Isabella usually is upon the 10th of October. Allowed his Rebecca vines to remain all winter tied to a stake as grown in the summer, and this spring found that even the terminal bud was sound; so sound that we used the last bud for propagation. In answer to a question, Mr. C. stated that his Delaware grape vines in the vineyard, under ordinary vineyard culture, made the most fruit, and the clusters were larger and finer than upon the vine against the east end of his house; while the vine trained upon the house had grown more wood.

Mr. HOOKER here remarked as to Rebecca standing out, that it was the roots of the Rebecca and not the tops that suffered from winter sometimes, and it required a little extra covering or protection to the roots to keep them from the effects of frosts in the ground. The wood of the Rebecca vine is always hardy to the effects of frost; but the summer's sun is apt to burn the leaves. As to Delaware, had noticed when last at the Hudson river, a short time ago, that those who had the most experience in the merits of the Delaware grape, were now preparing to plant this variety extensively. One man will plant 2,500 to 3,000 Delaware vines immediately, confidently believing them to be the most profitable grape that he can grow for the New York market. Delaware is certainly an uncommonly productive grape. We can get ten bunches of Delaware where we can raise one bunch of Rebecca, and Delaware grows a short jointed wood and does not make too much wood.

Mr. LANGWORTHY here rose and remarked that in his neighborhood Delaware is obtaining great notoriety. Some planters think they must have all Delawares set out. Delaware is a truly delicious grape; but size of fruit has its influence upon prices in the market.

Mr. HOOKER resumed: Don't for market grow all one sort of grapes; nor all one kind of pears; nor all one kind of peaches. By all means grow a variety of fruits. Every planter wants Delaware, and he wants Concord as well. He wants the very earliest fruit, and he wants Diana as well, which is early, but not quite as much so as Hartford Prolific.

Mr. ELLWANGER here remarked, that there is one thing in the Delaware that must not be overlooked, and which is very much in its favor. If not wanted for eating nor for market, it will make a good wine, and it always ripens.

Mr. MOODY said that the grape was the fruit of all fruits which entered most into general consumption. Everybody eats grapes; but its greatest use in my opinion in this country is for wine. We want a grape that will make wine, and good wine. We buy an immense quantity of wine, or what is called wine, from abroad. Some people are particular as to what they drink, but nobody that I have ever seen has been so conscientious that he won't drink good native wine. We want a grape sweet enough to make wine without the addition of any sugar to the juice, and having found such a grape, we can't raise too many of them in this country. Diana will also make a fine wine, beyond any doubt, for it also is a sweet grape. There is not any of that fibre which is in most of our native grapes; and which, when pressed, is very sour, and needs sugar. In my opinion, Diana and Delaware are the only two grapes which will here in this country make a really fine wine. Strong growers, with short jointed wood which ripens perfectly; early and abundant bearers, the fruit will hang upon the vines a long time after

ripening, and the frost does not injure the fruit when fully ripe.

In this connection, Mr. ELLWANGER spoke of the Delaware as sure to ripen about the middle of September, and then it could be left to hang on the vine until the middle of October, if not needed sooner. In Europe the vintners let their grapes hang upon the vines as long as possible; and the longer they hang the more saccharine matter they have in them. As to the quality of early ripening, the earlier the grape matures the more you can depend upon it, provided it will hang on the bunch; and then you are perfectly sure of having your grapes ripened.

Mr. LANGWORTHY here said that Mr. MOODY was on the right track in his strong commendations of the Diana and Delaware grapes. They are certainly good enough for eating by any fruit lovers, and then when not needed for consumption in that way, they possessed the very important attribute of making a wine which was a good wine, a fine flavored palatable wine, and sweet enough without sugar.

Mr. BARRY had drank Delaware wine in Cincinnati, and he could confidently say that it was the best American wine he had ever tasted; far better than the best Catawba; better than any foreign wine he ever saw or put his lips to.

Mr. CRAINE thought that the Delaware was more prolific than even that splendid grape the Diana, under the same treatment.

Mr. HOPKINS, of Tompkins county, had had considerable experience with the Delaware vines and fruit last summer and last fall. The Delaware is largely grown in New Jersey, and has been thus grown during thirty or forty years, until they have time to become very large vines. Under all sorts of treatment, they show that the vine will stand as much bad treatment as the Isabella. In one place found a vine allowed to run all over an apple tree, with a total neglect as to being pruned; and yet it was bearing a full crop of fruit all over the top of the tree. In every place where I have found it, it is valued very highly indeed; is valued above any grape they have ever seen. In the northern part of New Jersey, in places where the winters are as cold and as variable as they are here, and where they do not give to the Delaware the least kind of protection, it sustains itself better than the Isabella does under the same exposure. Judging from the fact that upon the high grounds in the colder parts of New Jersey, the Delaware vines have done remarkably well, Mr. H. could assure cultivators that in Western New York it will do as well as any other grape vine, and will produce as many pounds of fruit to the vine as any other kind. Its sterling good qualities can be best realized by its being called the "Italian Wine Grape" by some foreigners who saw it in the grounds of Judge Provost, at Kingswood, N. J. It has one valuable quality wherein it is different from any other of our native grapes, except the Diana, and that is, that as soon as it begins to be colored it is sweet and good.

Mr. MOODY here begged to remark, that in his experience the Diana had been fully as productive as the Delaware; and although he layered all the wood for propagation, still these layered branches set fruit; and every indication about the Diana shows signs of its being an early bearer.

Mr. CRAINE repeated his opinion as to the Delaware. Vines this year had made canes twelve and fifteen feet in length, and he thought that a Delaware plant in its third year's growth will bear more fruit under the same treatment than the Diana. He admired them both very much, but thought it his duty to commend the Delaware as he had already done.

Mr. HOAG spoke in favor of having a regular succession of grapes, in about an equal proportion of the varieties, as much as we do of any other fruit. If this be properly attended to, we can have and enjoy the luxury of the grape as long as we can apples—for at least six months steady. Would speak well of a variety called the Garrigues, which ripens at least ten days earlier than Isabella. Has grown it side by side with Isabella, and Garrigues is more hardy, maturing its fruit finely while Isabella rots. Although the flavor or quality may not be quite equal to that of Isabella, still it is very hardy, and exceedingly productive.

Mr. ELLWANGER again remarked, that as a rule, the grapes that ripen early are the kinds that keep best. An

objection to the Isabella for wine, is that in the manufacture of Isabella wine we must add sugar. Mr. LONGWORTH, of Cincinnati, whose name is so allied with the celebrated Catawba wine, had said to him that a sample of wine from the Delaware grape was the best wine he ever made; possessed more body, was a heavier wine, and a better wine than any other that he had. From his experience with Delaware, Mr. L. liked it very well so far. About Cincinnati, the Delaware vine does not require manuring highly; but it requires deep culture of the soil—such culture as would produce good crops of corn. The reason for deep culture is, that if the land be with a clayey subsoil underlaid with limestone, and the clay compact, the roots cannot penetrate it, and the subsoil needs working up.

Mr. HOOKER confirmed what Mr. ELLWANGER had stated as to deep culture; for in Monroe county, high manuring is not necessary to the successful growth of grapes. Too much manuring is done—too much stimulus applied.

Mr. BARRY spoke of cultivators as all being too anxious to get fruit immediately, and to have it ripen up all at once. The ground for planting the vine should in all cases be thoroughly prepared, and deep working is one of the requisites. To be sure, the roots may go down into the cold subsoil, but we are not working for one year merely, but for a whole generation. People are too impatient for fruit from their plantings; they grumble because their pear trees do not fruit sooner after setting out; and the Northern Spy apple, which is now so popular and highly esteemed, used to be blamed for its late bearing. In planting the vine, they use in Europe at first no manure; they trench and plant the vines, and afterward manure upon the surface of the ground. For a permanent vineyard, the soil should be subsoiled at least twenty inches deep; and although twice worked, you do not throw the subsoil on top of the other soil necessarily, but depending a good deal on the character of the subsoil. If the land be worked deep, the roots of the vines are not so liable to be killed by the winters. From the experience which fruit-growers have had during the twelve months past, we are more positive in regard to the qualities of grapes than we were a year ago.

Mr. MAXWELL, of Ontario county, spoke of Allen's Hybrid grape, a variety from Salem, Mass., which in a private garden at Geneva has done very well and promises well. The fruit is white like Rebecca, but the bunches are larger, the leaves larger, and the growth of the vine stronger.

Mr. HOAG spoke here of the Logan, a very early black grape, and said he should consider it a very good grape.

Several members called upon Mr. BISSELL to state as to the Logan, and he remarked that untoward circumstances had prevented his fruiting the Logan this year; but that a quantity of the fruit was sent to him from Mr. THOMSON on the 20th August, and all who ate it liked it very much.

Mr. ELLWANGER rose and remarked that when at Philadelphia lately, he had made inquiries of gentlemen from the west, and they did not express a very favorable opinion of it.

Mr. HOAG spoke of the To Kalon, which he would pronounce a better grape than the Isabella, especially for family use, for cultivation in gardens, &c.

In this Mr. HOOKER joined, pronouncing the To Kalon a grape of fine quality, with flavor delicious, and in size larger than the Isabella. It is earlier than Isabella, and is like the Diana a very vigorous grower, with broad fine foliage, and the fruit when fine is very fine; but it has defects for general cultivation, being subject to mildew and imperfect bunches. Mr. H. also spoke of the Union Village, as a variety which from observation he should judge to have a flavor as good as the Isabella, while its berries being so large and showy, made it worthy of trial. This Union Village grape creates quite a sensation at the east on account of its size.

Mr. ELLWANGER spoke of the Union Village from his own experience, having fruited it for the last two years; and in flavor it is fully as good as the Isabella, while the vine is perfectly hardy, and surely is among the varieties which are promising well.

D. W. BEADLE, of Canada, spoke of the Ontario grape, which was a fine showy grape in appearance, somewhat like what the Isabella would be with the berries much larger and the quality not quite as good.

Col. HODGE here remarked that the Ontario had been

twice shown at the exhibitions of the Buffalo Horticultural Society; noticed it especially a year ago, with its clusters enormously large, berries fully an inch in diameter, and the fruit was better than I anticipated. On the whole, thought the Ontario a passable grape.

Discussion here became very desultory, and consisted very much of questions and answers.

Mr. CRAINE said, in answer to a question by Mr. BAKER, that in some seasons the Catawba can be ripened well here, but not generally. Would doubt their actually ripening this year. He ripens the fruit of the Isabella vine two weeks earlier than usual by girdling, and the berries are from one-half to two-thirds larger; but it was at the expense of the flavor of the fruit, which was not near so good when it was stronger, and was not so palatable.

Mr. BARRY stated that Catawba don't ripen generally in this locality, but south in Steuben county, near Crooked Lake, knew of a hundred acres of very steep hill-side, well sheltered and facing the south. It was a nice gravelly loam, deep soil, &c., being an exceedingly warm spot. While in the open country they could not ripen the Isabella even, they had formed a company now for buying all the grapes produced as above, and converting them into wine. This spot in Steuben county is just the place for a vineyard; there is not another in Western New York so favorable; yet the Catawba can not be relied on here.

Mr. BAKER: Good wine can be made in Western New York. Use grapes of a different (riper) quality than for the table. Concord is at the head of the list; Diana is unquestionable, and is a fine, splendid grape.

Mr. HOOKER spoke of a good many new grapes, yet mainly confirmed what Mr. BAKER had said, and praised Diana, Delaware, and Concord, as about all that anything favorable has been said for.

On motion of E. MOODY, seconded by GEO. ELLWANGER, adjourned.

ABOUT TREES AND COUNTRY LIFE!

THERE is not a person, we believe, within reach of the *Genesee Farmer* who does not know the price of a cord of wood;—not a farmer who cannot give a shrewd guess how much money sundry old oaks or chestnuts will bring at the saw mill! Very many there are perhaps, who generalizing in a large, loose way, have thought of the influence which trees in the bulk or in the large forests have upon the climate and physical well-being of a country; as for instance how they hold the springs in solution as it were, so that they may not dry back too quickly into clouds, but tarry to nourish the earth. We all know, too, how much more liable a *cleared* country is to sudden freshets.

In short we have no doubt but that all interested can calculate the value of our timber in dollars and cents. They know, and are gratified in knowing, to how many and manifold uses our noble forest trees can be applied;—to uses of food and shelter, to uses of labor; to uses of adornment even, considered with reference to something else,—but as *things of beauty* considered by themselves,—as subjects of admiration and appreciation, each one as an individual and as a member of a beautiful class, how few persons whose lives and very fortunes are cast among them, regard the fellow inhabitants of earth in any such light.

There are some country people whom we know who will point with pride and pleasure to the old trees which have come down to them from a former generation,—never coldly calculating their cost, or charging them with lodging in meadow or corn field, but regarding them as *friends* faithfully relying for hospitality upon the owners of the soil, to whom they may yield a thousand fold of pleasure and true profit in return.

There is no doubt but the demands of art and manufactures, and steam travelling, and many other causes, all working in the same direction, are causing a rapid decimation of the trees of this country. If this goes on as heretofore, any one may calculate how soon this is to be a treeless land.

We would urge the farmers of this generation, (for on them the duty depends) to counteract this tendency by planting and raising and *loving* trees;—if not for *pleasure*, for profit. Of the profit of such work we are not now speaking;—but we would suggest that a *country-man* (in its true, good sense,) may indefinitely enhance his enjoyment of life by studying and cherishing and protecting trees,—giving them the best of his hospitality. They will educate, (that is *draw him out*) make him better and wiser, and be sure they will improve on acquaintance—country life is the best life of all, and trees are the best part of it.

We have been led to make these remarks by reading a chapter of the last work of RUSKIN—(Modern Painters.) He has occasion to analyze the sources of beauty to be found in trees—and growing things. Incidentally he speaks enthusiastically of country life, and these are his remarks, which we need not apologize to our readers for introducing, for they are quite complimentary to those of whom we are speaking.

“Being thus prepared for us in all ways and made beautiful, and good for food, and for building and for instruments of our hands, this race of plants, deserving boundless affection and admiration from us, become, in proportion to their obtaining it, a nearly perfect test of our being in right temper of mind and way of life; so that no one can be far wrong in either who loves the trees enough, and every one is assuredly wrong in both, who does not love them, if his life has brought them in his way. It is clearly possible to do without them, for the great companionship of the sea and sky are all that sailors need; and many a noble heart has been taught the best it had to learn between dark stone walls. Still if human life be cast among trees at all, the love borne to them is a sure test of its purity. And it is a sorrowful proof of the mistaken ways of the world that the “*country*,” in a simple sense of a place of fields and trees has *hitherto* been the source of reproach to its inhabitants, and that the words “countryman, rustic, clown, payson,

villager” still signify a rude and untaught person, as opposed to the words “townsman” and “citizen.” We accept this use of words or the evil which it signifies somewhat too quietly, as if it were quite natural and necessary that country people should be rude and towns people gentle. Whereas I believe that the result of each mode of life may, in some stages of the world’s progress, be the exact reverse; and that another use of words may be forced upon us by a new aspect of facts, so that we may find ourselves saying “Such and such a person is very gentle and kind—he is quite rustic; and such another person is very rude and ill taught—he is quite urbane.”

We do not propose to discuss the question of the comparative influences which town or country life may exercise upon the manners and dispositions of a people or of individuals, whether one is more civilizing than another; but we almost wish that *Ruskin* had done or *would do* what he “had once purposed, to show what kind of evidence existed respecting the possible influence of country life on men; it seeming to me then likely that here and there a reader would perceive this to be a grave question, more than most which we contend about, political or social, and might care to follow it out with me earnestly. The day will assuredly come when men will see that it is a grave question; at which period, also, there will arise persons able to investigate it. For at present, the movements of the world seem little likely to be influenced by botanical law; or by any other considerations respecting trees than the probable price of timber.”

How interesting a book would be, on such a subject by such an author. We could wish heartily that he might more frequently descend from his “*high art*” to subjects that all of us can understand so well.

Let then the dweller in country places be assured that *his day* is coming. The “*rural districts*,” are already making themselves felt, not only in politics but in everything else as well. *Cultivation* in the *humanizing* and *christianizing* subjects by which we are surrounded is one means to attain the end. The aphorism is familiar to us all, “a bad man cannot love trees.” So let us study them as one means to become good.

How shall we study them? Where begin?

AN experienced horticulturist in Alabama states that northern peach trees do not blossom with him till April, while the native peach trees blossom in February.

GRAPES IN CALIFORNIA.—The *California Farmer* says that Sonoma County “has now planted *twelve hundred acres of the vine*.”



DUCHESSÉ D'ANGOULEME PEAR TREE.

DUCHESSÉ D'ANGOULEME PEAR.

We have the pleasure of presenting the readers of the *Genesee Farmer* this month, an accurate portrait of a beautiful *Duchesse d'Angouleme* dwarf pear tree, growing on the grounds of S. MATHEWS, Esq., near this city.

For cultivation as a Dwarf tree, no variety succeeds better than the *Duchesse d'Angouleme*. The fruit is very large, and when well grown, on Dwarf trees, is of excellent quality. It commands the highest price in market. T. G. YEOMANS, of Wayne county, who has a large orchard of Dwarf *Duchesse d'Angouleme* trees, sent a barrel of selected fruit of this variety to Philadelphia a few weeks since, and it was sold for \$35.63—and it is said the purchaser trebled his money in retailing them out. To show the size of the pears, we may mention that it took but 125 pears to fill the barrel. They weighed 127 lbs., or over a pound each. The best eleven barrels sold for

over \$300, or nearly \$28 per barrel. With such prices, we can hardly wonder that, notwithstanding the danger from fire-blight—which this year has proved very destructive in many pear orchards in this vicinity—many farmers are planting large orchards of Dwarf Pear trees. Of course, the above figures do not represent the *average* price of *Duchesse d'Angouleme* pears; they only show the advantage of growing fine specimens, and of marketing them in the best condition. The average price is about \$10 per barrel.

SEEDLING TREES.—Many trees which are entirely hardy when grown, are very tender during the first and second winters. Cover them with straw, refuse garden gatherings, leaves, etc. Sometimes it is best to raise them and *lay them in by the heels*, by which those gardeners designate the operation of laying trees in trenches or excavations, and covering the roots and a considerable portion of the stems. This will not be extra labor in all cases when the young trees are to be reset, at any rate, the second year in nursery rows.—*Fruit, Flowers and Farming.*

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

TO KEEP CIDER SWEET.—Sulphite of Lime, which has been repeatedly recommended in the *Genesee Farmer* for preserving cider sweet, proves to be all that has been claimed for it. I tried it last year and had sweet cider all winter. It is sold in the drug stores in pound bottles. One bottle is sufficient for two barrels of cider. The plan I adopted was to let the cider ferment to the point desired. Then I racked it off, and added the sulphite of lime stirred in two or three quarts of cider and then poured into the barrel. This arrested all fermentation. I shook the barrel occasionally, and in three or four days bunged it up tight. I commenced to draw it in two weeks after bunging. The cider was clear and all that could be desired.

BOILING POTATOES.—Clean wash the potatoes and leave the skin on; then bring the water to a boil and throw them in. As soon as boiled soft enough for a fork to be easily thrust through them, dash some cold water into the pot, let the potatoes remain two minutes, and then pour off the water. This done half remove the pot-lid, and let the potatoes remain over a slow fire till the steam is evaporated; then peel and set them on the table in an open dish. Potatoes of a good kind thus cooked, will always be sweet, dry and mealy. A covered dish is bad for potatoes, as it keeps the steam in, and makes them soft and watery.

CHICKEN PIE.—Boil two chickens tender, have as much gravy as will cover the chickens; make a soda dough roll as thick as your hand, and large enough to line a small tin pan, dip the chickens and part of the gravy into the pan, after they have been seasoned well with butter, salt and pepper, roll a crust somewhat thinner and place over the top and pinch down around the edges, cut an opening on the top two inches in length, bake one hour or until the crust is nicely done, bring the remainder of the gravy to the table in a gravy dish.

TREATMENTS OF SCALDS AND BURNS.—Apply as soon as possible to the affected parts cloths dipped in cold water, change as often as they become warm, until the scald is done smarting; if the skin is broken use the ointment to heal the sore. Simmer together, two large onions, and four ounces of fresh lard two hours, strain and it is ready for use. This ointment is good for all inflammatory wounds. Burns should be covered all over with wheat flour.

STEAMED INDIAN BREAD.—One quart of sour milk, half a cup of molasses, one cup of flour, one teaspoonful of soda, nearly as much salt, make it about as thick as Johnny cake with fine Indian meal, pour it into a two quart basin, let it rise one hour, bake in an oven one hour and steam two hours in a covered steamer, over a brisk fire.

CAMPION FOR FLOWERS.—Two or three drops of a saturated solution of camphor in alcohol, put into half an ounce of soft water, forms a mixture which will revive flowers that have begun to droop and wilt, and give them freshness for a long time.

DRIED APPLE PIE.—Cover your apples with water and let them soak over night; stew them in the same water, stirring them often until done; beat them up fine, and add sugar to suit the taste, a little butter and essence of lemon. It will then be ready for your pie dishes. If your apples are good and tart, and your pies are not good made in this way, please write and let me know.

TOMATO PRESERVES.—Pare and slice green or ripe tomatoes, to one pound of the fruit add one pound of clean sugar, boil until the fruit is thoroughly cooked, skim it out and boil until the syrup is thick enough to keep; then pour the tomatoes back into the preserving kettle, boil five minutes, take care of them as other preserves.

HOW TO MAKE APPLE PIES.—Pare, core and slice thinly, tart apples; line your pie-plate with short crust, lay your apples evenly in the plate, cover with sugar; add a little butter, some grated nutmeg and a little water; cover and bake, and I promise you will have a good pie.

PORK CAKE.—Chop very fine one-half pound of boiled fat pork, pour on it one pint of boiling water, add one teacup of molasses, two cups of sugar, one pound of raisins, one teaspoonful of soda and one of ground cinnamon, stir thick as pound cake, with flour.

CREAM SPUNGE CAKE.—Beat two eggs in a teacup, fill the cup full with thick sweet cream, one cup of white sugar, one of flour, one teaspoonful of cream tartar, half a one of soda, season with lemon, bake in a long tin.

TO GET RID OF RED ANTS IN CLOSETS.—Throw some twigs of tomato vines on the shelves; or let the shelves be made of black walnut. Either will drive them away—so at least say writers in the *Country Gentleman*.

FROSTING FOR CAKE.—Beat to a froth the white of one egg, add ten heaping teaspoonfuls of pulverized white sugar. This will do for one loaf baked in a two quart basin.

TO REMOVE INK STAINS.—Stretch the part affected over a bowl of boiling water, and rub lemon juice upon it.

LADIES, WRITE FOR THE FARMER.—A witty writer says: "The way to a man's heart is through his stomach," and many of us are often tempted to believe it. Just try it, ye wives, and see for yourselves, if you have not already found it out. Prepare a meal of heavy bread, half seasoned pies, and poorly cooked meat. If he is a quiet man and never says much, just watch his countenance, and see if he does not act as though *all* was not right. Then prepare a good meal, have everything just right, and see if you are not truly paid in pleasant looks and kind words. The editor of the *Farmer* has truly remarked that "men put a great value on the housewife qualifications of their partners after marriage, however little they weigh them before." When we know how to prepare a nice dish, we ought not to be selfish and keep it for our own benefit, but send it to the paper, and thus we may be the means of some poor wife regaining the affections of her husband.—Mrs. A. J. SIBLEY, *Armada, Mich.*



New Advertisements this Month.

5,000 Agents Wanted—Ephraim Brown, Lowell, Mass.
 Stencil Tools—G. B. Bridgen, Norwich, Conn.
 Agricultural Books—Saxton & Barker, New York.
 American Arbor Vita—S. T. Kelsey & Co., Great Valley, N. Y.
 The American Corn-Husker—R. L. Howard, Buffalo, N. Y.
 Paying Employment—E. G. Storke, Auburn, N. Y.
 Canvassers Wanted—Robert Sears, New York.
 Cuyahoga Grape—Edw. Taylor, Cleveland, Ohio.
 To the Public—Sidney E. Morse, Jr., & Co., New York.
 Poultry for Sale—Sherman Smith, Darien Depot, Conn.
 Comprehensive Farm Record—Saxton & Barker, New York.
 Albany Drain Tile Works—C. & W. McCammon, Albany, N. Y.
 Prairie Farmer—Emery & Co., Chicago, Ills.
 Andre Leroy's Nurseries—Bruguicre & Thebaud, New York.
 Ontario Grape Vines—Otis F. Presbrey, Buffalo, N. Y.
 Best Six New Grapes—M. E. Batcham & Co., Columbus, Ohio.
 For Sale Cheap—Myron E. Tanner, Haverstraw, N. Y.
 To Inventors—J. Fraser, Rochester, N. Y.

THE GENESEE FARMER FOR 1861.—The prospects of the *Farmer* were never so encouraging as at this time. With the exception of one year (1851) its circulation was never so large as at present. It has *four* times as many subscribers to-day as when it came into the hands of the present publisher. For all this we are deeply grateful. This success is mainly due to our friends who act as agents, and to our unrivalled corps of correspondents. We desire to thank them, one and all, most heartily and sincerely. We can only say that we shall endeavor to merit a continuation of their good will. We are determined to spare no efforts or expense to render the *Genesee Farmer* for 1861 the best of the series.

We have only one fault to find with our agents. *They are too disinterested.* We offer liberal cash prizes—and *pay* them; but very few seem to care anything about them. Look at the Prizes which we pay this month for the largest clubs to the half volume. We pay a Prize of \$20 for a club of 71 subscribers to the half volume at 18½ cents each. We receive \$13.21 cents for these papers, and pay back \$20, or nearly *seven dollars* more than we have received. So of the second Prize of \$15, for 56 subscribers, we receive \$10.50 and pay back \$15, or \$4.50 more than we receive.

We do not complain of this. We shall pay the Prizes cheerfully and thank our agents for their efforts to increase our circulation, but at the same time we could wish that there was a little more competition. We desire to compensate all who work for us, and shall continue to offer the prizes whether our friends compete for them or not. Our Cash Prizes for next year will be found on the last page. Last year our highest Prize was \$25; this year we head the list with a Cash Prize of \$50. Let us see who will take it.

OUR LARGE SHOWBILL for 1861 is now ready, and will be sent free to all who desire to increase the circulation of the *Genesee Farmer*.

NOTES ON THE WEATHER FROM SEPTEMBER 15TH TO OCTOBER 16TH, 1860.—As the fine weather has been continued for months, nothing very striking is to be said of the last half of September. The average heat of this half is 54.8°, or 2° below that for 23 years, while the average of the month is 57.4°, or 3.1° below the mean for so many years. The hottest day was 69° for the mean, on the 24th, but the hottest noon was 80°, on the 19th.

The rain in September was 4.457 inches, a fine supply. The Genesee has not been so low as usual in August and September; abundant water for the mills and all machinery.

The first frost, of any power, was on the 30th. It killed the more delicate plants, as well as potato tops, buck-wheat, leaves of Isabella grapes and the like, and leaves of corn in some places.

On the 15th was a strong gale and storm along the Gulf of Mexico, at Mobile, New Orleans, &c.

On the 20th at Newark, N. J., and vicinity, a thunder storm in the morning, and damaged railroads, &c.; it reached Rochester in the afternoon, less powerful. The 25th gave us a great rain, 1.135 inches.

Snow on the White Mountains, N. H., on the 26th.

Fruits abound; peach harvest nearly over; apples, pears and plums most abundant; grapes fast maturing, and some in the market. A splendid September, ending rather cool.

Weather discouraging for the harvest at the close of September in England.

October came in cool, of course, as September had closed. Warmer weather followed to the 6th and 7th, when we had a cold period, and a severe frost on the 7th. The last great frost was on the 12th. Out-door grapes, and common vegetables of the garden and field, pretty well done up for the autumn, though the trees were not greatly affected by it.

For this half of October the average temperature was 48.8°, which was 2.3° below that for 25 years. The warmest noon was 64°, on the 10th; the warmest day, 57°, on the 4th; the coldest morning, 32°, on the 12th, and the coldest day, 39°, on the 6th.

The rain has been adequate, and the Genesee is higher than common in September and October, giving abundant water-power to the mills and factories.

Snow at Ludlow, Vt., on the 2d; and at Binghampton on the 15th, covering the ground two inches; at Pottsville, Pa., on the 15th, some snow; also at Auburn and Syracuse, at Cortland, and the mountains of Orange and Rockland counties.

On the 2d, severe gale and great storm in Southern Louisiana, greatly injuring sugar cane and cotton.

Terrific gale and storm on the coast of New Brunswick, on the 13th.

To say nothing of apples and pears, or the finest grapes, the later peaches are yet on hand in moderate quantity, and are most excellent when prepared for the tea-table.

WE CONTINUE our offer to send the *Genesee Farmer* for the last three months of this year (Oct., Nov., and Dec.,) and the entire volume for 1861, to all who send us fifty cents, at this time. We do this to give our friends an opportunity to introduce the paper into districts where we have now few subscribers.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1861.—The *Rural Annual* for next year will be issued in a few days. This work has been published for five years, and has met with decided success. It is designed to furnish at a cheap rate, and in book form, a large amount of useful information for the farmer and fruit-grower. It contains 120 pages; is profusely illustrated with beautiful and appropriate woodcuts, and is full of valuable information. It will be sent to any address, pre-paid by mail, on the receipt of 25 cents in postage stamps. Address JOSEPH HARRIS Rochester N. Y.

Subjects for Prize Essays.

We have received from various correspondents the following subjects for Prize Essays :

AGRICULTURAL.—1. Upon the importance and usefulness of the study of entomology "or insect life" to farmers and farmers' children, with concise and practical directions for collecting and preserving species, cheap cabinet, &c.

2. On the cultivation of the basket willow ; its preparation for market, and the probable profit per acre where ten acres are cultivated ; amount per acre and price per ton.

3. Are the interest of agriculture *truly* promoted by societies bestowing their highest premiums upon fancy trotting horses, and female equestrianism ?

4. On the management of cows for the dairy—including the best food ; and especially fall and spring feeding and management.

5. What means can be best employed to prevent farmers' sons deserting their fathers' profession ?

6. How and to what extent shall the study of agriculture be introduced into our Common Schools ?

7. Will it pay farmers to convert bones into superphosphate—and if so, the best method of doing it.

8. On the advantages of keeping a strict account of the expenses and profits of each product of the farm.

9. On the best method of digging and preparing swamp muck, its application, &c.

10. The best answer to the question, what do we make underdrains for ?

11. Can horse chestnuts be made use of as food for stock, and how ?

12. The best answer to the question, what do we plow for ?

13. On the best method of exterminating Canada thistles.

14. On the importance of furnishing good tools for boys.

15. On the cultivation of winter barley, its origin, &c.

16. On the best manner of underdraining with tiles.

17. On the duty of farmers to make home attractive.

18. On the best method of destroying lice on calves.

19. On the best method of exterminating red-root.

20. On the best kind of horses for farmers.

21. On the best method of making hay.

22. On the cultivation of Indian corn.

23. On Farmers' Clubs.

24. On Cheese making.

25. On breaking horses.

26. On rearing calves.

HORTICULTURAL.—27. On the best treatment for an old rambling grape vine. How can it best be brought into proper form and compass on a trellis ?

28. For the best plan of laying out a small flower-garden, and arranging a limited assortment of common shrubs and flowers.

29. For the best answer to the question: "Is it best to plant fruit trees in the fall or spring in this country?"

30. On the best method of cultivating, pruning and training grape vines.

31. On the cultivation of celery, and preserving it for winter use.

32. On the best method of cultivating the Japan apple pie melon.

34. On the cultivation of strawberries, best varieties, &c.

33. What is the cause of cracking in the pear, remedies, &c. ?

35. On the cultivation of the peach.

36. On grafting old grape vines.

FOR THE LADIES.—37. What is the best washing machine ; do they save much labor, and is their introduction among farmers desirable ?

38. On the use of soda or saleratus in cooking. Is it as injurious as is sometimes asserted ?

39. Are sewing machines of much use in farmer's families ?

40. How can the labor in a farm house be lessened ?

41. On the best method of drying fruit.

42. On making cheese from a few cows.

43. On butter making.

We offer a prize of a dollar book for the best essay on each of the above subjects. The essays should not occupy more than a page of the *Genesee Farmer*, (say six pages of foolscap.) They must be sent in by the 25th of December. The essays will be submitted to competent judges, and those deemed the best will be published in the February number of the *Genesee Farmer*.

THE MARKETS.—The accounts from England during the last two or three weeks report unfavorable weather and an advance of prices. Under the influence of this news, prices have advanced somewhat in this country. In this city to-day (Oct. 22), the best white wheat brings \$1.40 ; red Mediterranean \$1.15 a \$1.20. Corn 60 cents ; Barley 62½ a 65 cents. There are few white beans offered. The best are worth 80 cents. In New York, white wheat sells for \$1.50 a \$1.60 ; red \$1.38 a \$1.42 ; Spring wheat, Milwaukee club \$1.30 a \$1.35 ; Chicago, Spring wheat \$1.20 a \$1.30. Inferior and smutty Spring wheat is difficult to sell. Rye is scarce and wanted at 80 to 81 cents. Barley is in fair supply ; common is slow of sale at 77 cents, while choice is firm ; State 77 to 80 cents ; choice Lake shore and Canada West 83 a 89 cents. Oats, scarce and advancing, 38½ a 40 cents. Corn is advancing. There is an increased demand for exportation. The range is 72 to 86 cents. White Beans 90 cents to \$1.15.

HALF-YEAR PREMIUMS.—Our half-year premiums for the greatest number of subscribers sent in on or before the fifteenth day of October, have been taken as follows :

1. J. Mackelcan, Jr., Hamilton, C. W.	\$20 for 71 subs.
2. W. H. McCrea, Norristown, Pa.,	15 " 56 "
3. J. W. Valentine, Rumsey, N. J.	10 " 50 "
4. T. J. Risley, Springville, Pa.,	9 " 49 "
5. A. Donald, Burnbrae, C. W.,	8 " 38 "
6. S. Mills, Franktown, C. W.,	7 " 34 "
7. J. K. Garnham, Guysboro, C. W.,	6 " 32 "
8. G. Willard, Sandford Corners, N. Y.,	5 " 31 "
9. Aaron Shoop, Kittanning, Pa.,	4 " 28 "
10. G. Strother, Van Wert, O.,	3 " 22 "
11. R. B. Curry, Donelson, Tenn.,	2 " 20 "
12. S. B. Peck, Muskegan, Mich.,	1 " 18 "

Our friends can draw on us at sight for the amounts, or we will send by mail, or in any other way they may designate.

CASH PRIZES.—Our list of Cash Prizes for the greatest number of subscribers to our next volume, sent in before the fifteenth of January will be found on the last page. So few compete for these prizes that no one can fail of securing one of the largest by a little effort. Our offer to send the paper for 15 months for 50 cents affords a rare opportunity to commence canvassing at this time.

Inquiries and Answers.

CULTURE OF DWARF PEAR AND APPLE TREES.—(O. HUTCHINSON.) There is no work published treating exclusively on this subject. You will find much useful information on the matter in the back numbers of the *Rural Annual and Horticultural Directory*. We will send you the whole series of five numbers (1856-7-8-9 and '60) prepaid, by mail, on receipt of one dollar.

GRAFTING GRAPE VINES.—I wish to know if grapes can be grafted from one vine to another that does not bear fruit, the time of year, and the process of grafting. Information in relation to it will confer a favor to a fruit-grower.—Z. K., *Jenkins, Luzerne Co., Pa.*

APPLES AND GRAPES FROM SEED.—Can you or any of the readers of the *Farmer* inform me whether the seed of the apple will produce the same kind of fruit as the apple from which it was taken. Also, whether the grape will grow well from the seed; and if so, when is the proper time to plant them.—J. H. L., *Meachville, Pa.*

The varieties of neither Apples nor Grapes can be reproduced from seed.

WAGON AXLE.—I believe "J. H. A." is right so far as he goes, his answer being in substance the same as I have received from several wagon makers, carriage makers, and blacksmiths, to whom I have spoken upon the subject. But there is yet a question which I have never got satisfactorily answered: that is, how much gather do the wheels require so as just to counteract the united influences of the dip of the axle and its taper? Also, will some of your correspondents please tell me how to dress sheep skins?—W. J., *Eastwood, Va.*

PREPARING GROUND.—Will some of your correspondents give the best mode of fixing and preparing the ground for the growth of strawberries. Also, what kind of soil is the best adapted for them, and the best kinds of manure to be used. Also, the best way to prepare the ground for rhubarb, the kind of manure used, the proper distance it should be planted, the average amount taken per year from an acre of each, the expense of tending and gathering, with the net proceeds of both strawberries and rhubarb.—W. A. B., *Annapolis, N. J.*

POTATO BUGS.—In the last number of the *Farmer*, I notice, "A Subscriber, Ky.," wishes to know about the potato bug. They have troubled us more or less for the last ten years—sometimes almost destroying the crops. We have tried, with good success, sprinkling ashes and air-slacked lime upon the vines, while the dew was on. They will leave those, and commence eating in other places. They frequently come in such numbers as to eat all the leaves in one or two days, and at a time when the leaves are most needed, taking eight or ten rows at a time. Anything that will scatter them in different parts of the field, and then follow them with the ashes, will prevent them from killing the vines and destroying the crop.—SAMUEL B. TURNER, *Quincy, Ill.*

BARREN GRAPE VINE.—I wish to ask you a question, and should be pleased to receive an answer to it. I have a fine growing grape vine standing at the east end of my house, some branches of which have grown a dozen feet or more this year. It has blossomed full three or four years, but never has had a grape on it. It is called by some a male vine. Now, can anything be done to or with it, to bring it into bearing?—A. P., *Portage, Liv. Co., N. Y.*

It is a feature of the vine in its wild state, often to produce all staminate flowers on some plants, and all pistillate on others; and cultivated vines in some cases exhibit this trait, of which the vine in question is no doubt an example. The best remedy is to dig up the vine and destroy it, and substitute in its place some of the valuable new varieties which can now be procured.

TRAPPING FOXES AND COONS.—Will some of your many correspondents give me the best manner of baiting and trapping foxes and coons, as they are rather destructive in this country.—J. B. D., *Marion, Pa.*

CANADIAN HORSES.—I am anxious to obtain some information respecting the "Canadian Horse," spoken of in "Youatt on the Horse," with Spooner's notes, and a brief notice of "Breeds in the United States," by H. S. Randall; see page 29 of this book. This breed is also spoken of in the letter of Edward Harris, beginning at page 30 of same work. Mr. Harris states, in his letter, his opinion that the "Percheron blood still exists in Canada, in all its purity." I am curious to know the present condition of this breed, in what portions of Canada it is found in its greatest perfection, the average size of the horses, their shape, their good and their bad qualities, and their present value. My attention has been called to this subject, partly from reading the work I speak of, and partly from the fact that, within the last few years, a number of so-called "Canadian Horses" have been brought here. Some were merely ponies, sprightly and active, but too small and coarse for the fancy or the use of one needing a horse. There have been two or three, however, that were fine animals; showing considerable blood, with good size and action, and, as far as I know, great docility, with sufficient spirit. Will some of your Canada correspondents favor your readers with a communication on the subject?—H. SAFFORD, *Natchitoches, La.*

WHAT IS THE BEST WAY TO USE STRAW?—I am a resident of what is called "The Mining Region," yet we have an excellent farming country. I wish to state a few facts, and ask a few questions. Our main crops here are Spring wheat, oats and corn. Our farming is done in a very slovenly manner, from necessity. Crops of small grain are cut and put into "the shock" nearly as fast as cut, and when cutting is done, there are thousands of acres standing out when stacking commences. The grain is subsequently threshed from the stack, and "rail pens" are built, corked and lined with straw, and the nice clean wheat, fit for market, is poured upon the straw, and when the pen is full it is then covered with straw to protect it from storm. Many scatter their straw around by drawing it from the machine with horse and rope, and then burn it. I yet inherit so much of the "Eastern superstition" that I think it will pay to spare a spot large enough for straw pile, until it decomposes and forms a manure. I have some seven straw piles on my farm, from twenty to fifty tons each, some of three years standing, and now the question is, how can our straw be made available in the shortest time, and to the greatest advantage? If you, or some of your numerous correspondents, will answer the above inquiry, you will confer a favor on many who are, and I trust soon will become, patrons of the *Genesee Farmer*.—S. A. DAVIS, *La Fayette Co., Wis.*

GRAFTING GRAPE VINES.—Have any of the correspondents of the *Farmer* tried the method of grafting grape vines described by FRANCIS A. BALLER, in the February number of the present volume; if so, I should be glad to learn whether they have succeeded or not. I tried it upon some three year old Isabella vines, which were pruned down nearly to the ground last fall. I was careful to follow the directions closely, yet none of the grafts have lived. The buds soon swelled, and appeared to be on the point of pushing out shoots, but I could not induce them to do anything more, although I had put a wire ligature just above each bud, and was also careful to rub off all shoots that pushed out either above or below the inserted buds; but it was of no use, they remained as they were a long time, and finally died. I was much disappointed at the result, for the grafts were *Delawares*, and I hoped to obtain some fine vines. Can Mr. BALLER, or any one else, tell me why they failed? I have also tried grafting into the roots, as is usually advised, and the scions grew from two to four inches, and then died. I also wish to inquire if there is any better grape for winter keeping than the *Diana*? Is it as good a keeper as the *Clinton*? Are the leaves of the *Clinton* smooth on the under side like the *Delaware* and the *Taylor*, or are they downy, like most other native varieties.—BEN. HADAD, *Essac Co., Mass.*

The leaves of the *Clinton* are smooth on the under side, not downy.

UNFRUITFUL WALNUT TREE.—I have a good Walnut tree, for size, standing near my house, which is a poor bearer. Can any of your readers tell me what I can do to make it bear nuts more abundant?—IRONDEQUOIT.

Books, Pamphlets, &c., Received.

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Parts 19 and 20. New York: D. APPLETON & Co. Price 15 cents per number.

THE PENMAN'S MANUAL. Being a new Theory and System of Practical Penmanship, designed as a Text-Book for Schools and Private Students. By a Business Penman. New York: FOWLER & WELLS. Price 50 cents.

The following books are for sale by STEELE, AVERY, & Co., of this city.

FIRST GREEK BOOK. Comprising an Outline of the Forms and Inflections of the Language, a Complete Analytical Syntax, and an Introductory Greek Reader. By A. HARNESSE, Ph. D. New York: D. APPLETON & Co. Price 50 cents.

CRITICAL AND MISCELLANEOUS ESSAYS AND POEMS. By T. BARINGTON MACAULAY. New and Revised Edition. New York: D. APPLETON & Co. Price 75 cents.

THE FAIRY NIGHTCAP. By the author of "The Five Nightcaps Book," "Aunt Fanny's Stories," &c. New York: D. APPLETON & Co. Price 50 cents.

A YEAR WITH MAGGIE AND EMMA: A True Story. Edited by MARIA J. MCINTOSH. New York: D. APPLETON & Co. Price 62½ cents.

PRIMARY HISTORY OF THE UNITED STATES. By G. P. QUACKENBUSH, A. M. New York: D. APPLETON & Co. Price 50 cents.

NOTES ON THE PARABLES OF OUR LORD. By RICHARD CHENEVIX TRENCH. Condensed. New York: D. APPLETON & Co. Price 1¢.

THE LITTLE NIGHTCAP LETTERS. By the author of "Nightcaps." New York: D. APPLETON & Co. Price 50 cents.

The following is for sale by DARROW & BRO., of this city: MISS GILBERT'S CAREER: An American Story. By J. G. HOLLAND, author of "Bittersweet," "The Titcomb Letters," &c. New York: CHARLES SCRIBNER, 124 Grand St. Price \$1.25.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

Special Notices.

THE GREATEST PUZZLE OUT.—Some people are puzzled at one thing and some at another. But the greatest puzzle of all to our good housewives, is to comprehend how it is that JAMES PYLE'S DIETETIC SALERATUS is sure to make good bread, biscuit and cake every time it is used, and that it is perfectly free from all the noxious compounds with which all other kinds of saleratus are adulterated. Look out for imitations. See that the name of JAMES PYLE is on the package. Depot, 245 Washington Street, New York.

THE public attention is respectfully requested to the following cards of ELIAS HOWE, JR., and the GROVER & BAKER S. M. Co.:

A CARD FROM THE GROVER & BAKER S. M. CO.

The public, in their eagerness to supply themselves with Sewing Machines making the GROVER & BAKER stitch, must not forget to purchase them of parties who are alone authorized to sell them. All purchasers and users of fraudulent machines of this class will be visited with certain prosecution. Those who have already been induced to buy these fraudulent machines can purchase a license for their use before prosecution on proper application. All machines sewing from two spools, and in which one needle only penetrates the cloth, and having a feed which allows the material to be turned at will, are infringements.

495 Broadway, New York. GROVER & BAKER S. M. Co.

A CARD FROM ELIAS HOWE, JR.

All persons are cautioned not to make, deal in, or use any Sewing Machines which sew from two spools and make the stitch known as the GROVER & BAKER stitch, unless the same are purchased from the GROVER & BAKER Sewing Machine Company, or their Agents, or Licensees, and stamped under my patent of September 10, 1846.

Said Company, and their Licensees, alone, are legally authorized under their own patents, and my said patent, during the extended term thereof, to make and sell this kind of Sewing Machine, and all others are pirates upon my said patent, and will be dealt with accordingly, wherever found.
New York. ELIAS HOWE, JR.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

TO INVENTORS.

PATENTS obtained on *Rejected Applications*, or no charge Examining fee, \$5. J. FRASER, Patent Solicitor.
Nov.—1t 24 Arcade, Rochester, N. Y.

FOR SALE CHEAP.—A valuable farm of 100 acres, 30 miles from New York. Soil-rich loam, excellent for grain or grass, Easy of access by railroad or steamboat. Terms easy. Address Nov.—1t* MYRON E. TANNER, Ilverstraw, N. Y.

BEST SIX NEW GRAPES.—Delaware, Diana, Concord, Rebecca, Hartford (Prolific and Union Village—good one year old roots, warranted genuine, will be furnished, packed in moss for Express, for \$5 the set; or for \$6 we will send the foregoing and York Madeira (same as Marion Port and Hyde's Eliza) Clinton, Catawba and Isabella, making 10 varieties.
Send for *Descriptive Catalogue of the Columbus Nursery.*
Nov.—2t M. B. BATEHAM & CO., Columbus, Ohio

ONTARIO GRAPE VINES.

THE undersigned is now prepared to fill all orders for this valuable variety of Grape. It ripened this year 20 days earlier than the Isabella. It is free from mildew, and grew clusters weighing from 1 to 2½ lbs. Price \$3 per single vine, or \$30 per dozen. Early orders will secure strong plants. Address OTIS F. PRESUREY, PROSPECT HILL VINEYARD, Buffalo, N. Y.
Nov.—1t

ANDRÉ LEROY'S NURSERIES,
At Angers, France,

THE proprietor of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends and the public that his CATALOGUE OF FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, SEEDLINGS, FRUIT-STOCKS, &c., for the present season is now ready at their disposal. Apply to BRUGUIERE & THIEBAUD, 51 Cedar Street, New York.
Nov.—2t

THE PRAIRIE FARMER,

A Weekly Journal of

Agriculture, Horticulture, and Kindred Interests.

ESTABLISHED IN 1841.

THE Publishers will spare no pains or expense in making a paper every way reliable and truthful, and that shall be a true index of *Western Agricultural Interests*—an assistant on the Farm, in the Orchard, and a welcome Companion at the Fireside of Eastern and Western Homes.

TERMS REDUCED TO CLUBS.

One copy, one year..... \$2 00
Six copies, one year, and one to get up of club..... 9 00
Twelve copies, one year, and one to get up of club..... 16 00
Twenty copies, one year, and one to get up of club..... 25 00

Papers may be sent to different offices, if desired, in making up clubs.

The postage on the FARMER within Illinois is only 13 cents per year—out of the State, 26 cents.

All Yearly clubs made up previous to New Year's, will receive the paper until January, 1862—thus giving such person extra time gratis.

Samples sent free to all on application.
All friends of Rural Improvement are cordially invited to assist in circulating the FARMER. Address
Nov.—2t EMERY & CO., Chicago, Ills

**C. & W. McCAMMON'S
ALBANY DRAIN TILE WORKS.**

CORNER OF CLINTON AV. AND KNOX ST.,
ALBANY, N. Y.



1 1/2 inches round.....	\$5.00 per 1,000 feet.
2 1/4 " " " " " " " " " "	12.00 " " " "
3 3/8 " " " " " " " " " "	49.00 " " " "



2 1/2 inches rise.....	\$10.00 per 1,000 feet.
3 1/2 " " " " " " " " " "	15.00 " " " "
4 1/2 " " " " " " " " " "	18.00 " " " "
5 1/2 " " " " " " " " " "	25.00 " " " "
6 1/2 " " " " " " " " " "	55.00 " " " "
7 1/2 " " " " " " " " " "	76.00 " " " "



2 inches rise.....	\$10.00 per 1,000 feet.
3 " " " " " " " " " "	16.00 " " " "
4 " " " " " " " " " "	30.00 " " " "
5 " " " " " " " " " "	50.00 " " " "
6 " " " " " " " " " "	80.00 " " " "
9 " " " " " " " " " "	200.00 " " " "



1 1/2 inch Collars.....	\$4.00 per 1,000 pieces.
2 1/2 " " " " " " " " " "	10.00 " " " "



2 inch Saddles.....	\$4.00 per 1,000 pieces.
3 " " " " " " " " " "	6.00 " " " "
4 " " " " " " " " " "	10.00 " " " "

ORDERS SOLICITED—Terms, CASH. Address
Nov.—1t C. & W. McCAMMON, Albany, N. Y.

A Silver Medal has just been Awarded by the New York State Agricultural Society for

The Comprehensive Farm Record,

A MOST valuable and curious book, arranged for recording everything the farmer desires, for 25 years. Price \$3.

We have recently published

TODD'S YOUNG FARMER'S MANUAL.....	Price \$1.25
YALE AGRICULTURAL LECTURES.....	" .50
OUR FARM OF FOUR ACRES.....	" .50
RIVER'S ORCHARD HOUSE.....	" .40
PHIN'S OPEN-AIR GRAPE CULTURE.....	" 1.00
BRIGHT ON THE GRAPE.....	" 1.50
HARRISON ON BEES.....	" 1.00

Our Catalogue of all kinds of Agricultural Books will be sent free to any address. SAXTON & BARKER, Agricultural Book Publishers and Proprietors of *The Horticulturist*,

Nov.—1t 25 Park Row, New York.

POULTRY FOR SALE.—Gray and White Dorking, large breed of Wild Turkeys domesticated; also the Large Bronze Turkey. Aylesbury, Rouen, and Black Java Ducks, with a large variety of other fancy poultry. Address
1t SHERMAN SMITH, Darien Depot, Conn.

TO THE PUBLIC.

DO YOU WISH TO READ an entertaining, instructive, religious and secular family newspaper, sound, conservative and safe,

THE LARGEST IN THE WORLD;

giving full, impartial and reliable summary of all the news in all religious denominations, from all political parties, from all countries in the world; belonging to no sect in the Church, and to no party in the State, but opposed to every *ism* that disturbs the peace of the community and the harmony of the country; a news paper having distinct departments devoted to Agriculture, Commerce, and General Literature, with Tales, Poetry, Science and Art, furnishing pfeasant and instructive reading for children and parents, in all the realms of matter and mind. You can have it for one year by sending your name and address, with \$2 50, to the NEW YORK OBSERVER Office.

Commission to Agents.

Any person who will obtain five *new subscribers*, with advance payment, may retain FIVE DOLLARS as his commission, and for twenty new subscribers, may retain Twenty-five Dollars.

SIDNEY E. MORSE, JR. & CO.

EDITORS AND PROPRIETORS,
87 Park Row, New York.

Nov.—2t

CUYAHOGA GRAPE.

I AM NOW OFFERING this new and popular variety, of last season's growth, strong pot-plants cut back to three or four eyes, at \$3 each.

It is a strong, healthy grower, much resembling the Isabella in leaf and vine; very woody and productive. The fruit is light, transparent green, with a yellowish glow and transparent bloom, tender, sweet, and fine Chasselas flower. Bunch and berry near the size and shape of the Catawba, but not so compact. Ripens with the Diana.

We give the following extracts from the opinions of leading horticulturists:

"As good as the White Chasselas."—MARSHALL P. WILDER.
"The best grape yet introduced for this locality."—Dr. J. P. KIRTLAND.

"Of some seventy native varieties we have tasted this season, this is decidedly the best."—THOS. MEEHAN, *Gard. Monthly*.

"The best white grape yet introduced."—BISELL & SALTER.

It took the first premium at the New York State Fair in 1859.
EDW. TAYLOR, COVEDALE NURSERIES, Cleveland, Ohio.

Nov.—1*

Canvassers Wanted in all Parts of the Union.

PROFITABLE EMPLOYMENT.

PLEASE TO READ THIS!—Agents Wanted!—Extra inducements for 1861! All persons in WANT OF EMPLOYMENT will at once receive our Catalogue of Books, pre-paid, by forwarding us their address. Particular attention is requested to the liberal offers we make to all persons engaging in the sale of our Large Type Quarto PICTORIAL FAMILY BIBLE, with about One Thousand Engravings. On receipt of the established price, Six Dollars, the Pictorial Family Bible, with a well-bound Subscription Book, will be carefully boxed and forwarded by express, at our risk and expense, to any central town or village in the United States, excepting those of California, Oregon and Texas. Our books are sold by canvassers, and are well known to be the most saleable. Address, post paid,

ROBERT SEARS, Publisher.

Nov.—1t No. 181 William Street, New York.

All who Want Paying Employment

SHOULD engage without delay, in canvassing for the New S Agent's Books of the Auburn Publishing Co. If you will only send us your address—an easy thing—we will return you, free, our Confidential Circular, containing full particulars of the business,—its profits, and how to conduct it. The information, while it will cost you nothing, will offer to all competent applicants a business worth from \$1,000 to \$1,500 per year. It is free from risk, and any one can follow it in his own town or county. It is now unusually good. Will you try it? If so, address
Nov.—1t E. G. STORKE, Auburn, N. Y.

The American Corn-Husker,

JOHNSON'S PATENT.

THE subscriber is now manufacturing this valuable Husker. Price, One Dollar. They weigh only three-quarters of a pound, and may be sent by express. Liberal discount to the trade. It R. L. HOWARD, Buffalo, N. Y.

AMERICAN ARBOR VITÆ.

BALSAM Fir, Hemlock, Norway and American Spruce, Pines, Deciduous Ornamental Trees, Gooseberries, &c., in quantities to suit, at lowest cash rates. Send for a Catalogue.

S. T. KELSEY & CO., GREAT VALLEY NURSERIES,
Nov.—6t Great Valley, Cattaraugus Co., N. Y.

THE GROVER & BAKER
NOISELESS

Family Sewing Machine

It rapidly superseding all others for family use. The DOUBLE Lock-Strut formed by this Machine is found to be the only one which survives the wash-tub on bias seams, and therefore the only one permanently valuable for Family Sewing.

IT IS THE BEST IN THE WORLD

For families to use, who desire a stitch unrivalled for BEAUTY, ELASTICITY, and STRENGTH. This machine sews equally well on all fabrics—muslin, cotton, linen, woollen cloth, etc., from the finest SWISS MUSLIN up to the HEAVIEST BEAVER CLOTH or LEATHER. It finishes its own work, which is more durable than any fabric, runs at a quicker rate of speed than any other, is very simple in its construction, easily understood, and with proper management NEVER GETS OUT OF ORDER.

OFFICES.

495 Broadway, New York; 15 Summer Street, Boston; 730 Chestnut Street, Philadelphia; 151 Baltimore Street, Baltimore; 124 North Fourth Street, St. Louis; 68 West Fourth Street, Cincinnati; 411 Superior Street, Cleveland; 115 Lake Street, Chicago; and in all the principal cities and towns in the United States.

SEND FOR A CIRCULAR. Oct—4t

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no Competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy.

REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to JAMES G. DUDLEY, General Western Agent, 93 Main street, Buffalo, N. Y. April, 1860.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by JAMES G. DUDLEY, 93 Main street, Buffalo, N. Y. April, 1860.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best Safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent, at 93 Main street, Buffalo, N. Y.

April, 1860.

True Delaware Grape Vine.

ONE YEAR OLD—Strong, well-rooted plants, \$1; two years \$1.50 to \$2; extra large layers, with bearing wood, \$2 to \$3 smaller, good layers, \$1 to \$1.50. Very fine Logan Vines, 1 and 2 years, \$1 to \$2. All other desirable varieties, new and old, at lowest rates. Send for a circular. GEO. W. CAMPBELL, Delaware, Ohio. Oct.—2t

PITTSBURGH WATER CURE—A first-class CURE, in its sixth year Room for over 100 patients. Send for circular to Dr. FREASE, Pittsburgh, Pa. Oct.—4t*

GUANO.

We would call the attention of Guano Dealers, Planters, and Farmers, to the article which we have on hand and for sale at

40 PER CENT LESS THAN PERUVIAN GUANO, which we claim to be superior to any Guano or fertilizer ever imported or manufactured in this country.

THIS GUANO IS IMPORTED BY

WM. H. WEBB,

OF NEW YORK, FROM

Baker's and Jarvis' Islands, in the South Pacific Ocean.

Sold genuine and pure as imported, by the Cargo, or at retail by

JOHN B. SARDY, GENERAL AGENT,

No. 58 SOUTH STREET, CORNER OF WALL STREET, NEW YORK.

It has been satisfactorily tested by many of our prominent Farmers, and analyzed by the most eminent and popular Agricultural Chemists, and found to contain (as will be seen by our circular) a large percentage of

BONE PHOSPHATE OF LIME AND PHOSPHORIC ACID.

and other animal organic matter, yielding ammonia sufficient to produce immediate abundant crops, besides substantially enriching the soil. It can be freely used without danger of burning the seed or plant by coming in contact with it, as is the case with some other fertilizers; retaining a great degree of moisture, it causes the plant to grow in a healthy condition, and as experience has proved,

FREE OF INSECTS.

For orders in any quantity (which will be promptly attended to) or pamphlets containing full particulars of analyses and tests of farmers, apply as above. Oct.—1f

NOW IS THE TIME TO SUBSCRIBE.

"THE COUNTRY GENTLEMAN," writes the Hon. JOHN WESTWORTH in the Chicago Democrat, "is the name of, without QUESTION, THE BEST AGRICULTURAL PAPER IN THE UNITED STATES."

THE COUNTRY GENTLEMAN is published Weekly—16 pages quarto, and entered upon its Fifteenth Volume with 1860—inaugurating at that time several improvements—among them an enlarged page, larger type, and an increased amount of contents.

THE COUNTRY GENTLEMAN forms far the most complete and practical Weekly Journal for the Farmer and Country Resident published in this country. TERMS: TWO DOLLARS A YEAR. Address, with remittance, or for Sample Numbers, LUTHER TUCKER & SON, Albany, N. Y.

* * * L. T. & SON also publish THE CULTIVATOR, Monthly, at Fifty Cents per Annum, and THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS, Annually—price Twenty-Five Cents. The number of the latter for 1861 is just ready, and contains 160 Engravings. Samples of THE COUNTRY GENTLEMAN and CULTIVATOR will be sent gratis to all who enclose 25 cents for the ANNUAL REGISTER for 1861. Address as above. Oct.—2t

AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, Secretary. J. K. CHAPPELL, Agent. 64 Exchange Street, Rochester, N. Y.

June—if

GRAPES! GRAPES!! GRAPES!!!

TWENTY varieties of the best hardy sorts, singly, by the dozen or hundred. Send stamp for priced descriptive catalogue. Oct.—2t* D. S. HEFFRON, Utica, N. Y.

\$100 PER MONTH—Can be made by any one with Stencil Tools. I sell the cheapest and best. Be sure and send for my circular, which fully explains the business. Address Oct., 1860.—5t* JOHN MILLIKEN, Lawrence, Mass.

MONEY CAN BE MADE—In selling our Agricultural and Miscellaneous Books. For terms of agency apply to SEXTON & BARKER, 25 Park Row, New York. Nov.—2t

THE HYDROPULT,



AN invention for throwing water by hand-power, patented by A. W. T. VOSE. It is one of the most valuable inventions of the day.

THE HYDROPULT

will, by the power of one man, throw water at the rate of eight gallons per minute fifty feet high, with great force. It is the best article ever invented for

- EXTINGUISHING A FIRE,
- PROTECTING A ROOF FROM TAKING FIRE,
- WASHING WINDOWS,
- SPRINKLING PLANTS,
- WATERING GARDENS,
- CLEANING TREES FROM INSECTS,
- WETTING SIDEWALKS,
- SPRINKLING STREETS,
- WASHING CARRIAGES,
- CLEANING CISTERNS,
- EMPTYING WATER FROM SAIL-BOATS,
- WETTING SAILS,
- A SPRAY BATH, &c., &c.

This article should be owned by every householder. It does away with the necessity of a hydrant. It is a light, portable FORCE PUMP, always ready, easily used, and will come in frequent use by every farmer, merchant, and mechanic in the community. Please call and examine the article at No. 41 Park row, Times Building, or address the

AMERICAN HYDROPULT CO.,
No. 41 Park row, New York.

Agents wanted throughout the United States to sell the Hydropult. Apply as above. Sept.—31

100,000 PEACH TREES.

HIGHTSTOWN, N. J., NURSERIES.

ISAAC PULLEN, PROPRIETOR,

OFFERS for sale 100,000 Peach Trees of leading market varieties. Also a complete assortment of other Fruit Trees. Catalogues supplied gratuitously on application. Address Oct.—21

TREE SEEDS.

MEEHAN'S New List is the fullest ever offered—over 800 kinds of Fruit and Tree Seeds.

SEEDLINGS, &c.—Over 200 kinds enumerated in Wholesale List, including Fruit Stocks, New Lawn Grass (*Spergularia*), Rhubarb or Pie-plant, Silver Maples, &c.

HYACINTHS and DUTCH BELLS—Also, Catalogues of other extensive departments. THOS. MEEHAN, GERMANTOWN and WESSAHOON NURSERIES, Germantown, Pa.

SUFFOLK SWINE.—The subscribers have on hand and for sale Pure Blood SUFFOLK Pigs, bred from their importations of 1852, 1853, 1859, and their descendants. Address July—31

JOSIAH STICKNEY or } Boston, Mass.
ISAAC STICKNEY, }

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Coiswold Sheep, Markham P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price \$5 per pair. July—1y

SHORN-HORNS—Several young Bulls and Heifers. SCFFOLK SWINE—all ages. For sale by T. L. HARRISON, July—6t* Morley, St. Lawrence Co., N.Y.

40 SUPERIOR SPANISH MERINO BUCKS for sale by June—6t GEO. CAMPBELL, West Westminster, Vt.

FAIRBANKS'



STANDARD SCALES!

ADAPTED TO EVERY BRANCH OF BUSINESS where a correct and durable Scale is required.

Every Farmer and Cattle Dealer should have a FAIRBANKS' SCALE.

Send for a circular. FAIRBANKS & CO., 159 Broadway, New York. S. W. STEVENS, Traveling Agent, Post office address, Rochester, N.Y. June—6t

Pomona Garden and Nursery.

CINNAMINSON, NEW JERSEY.

A LARGE COLLECTION of Fruit and Ornamental Trees Vines and Plants, among which are 50,000 PEACH TREES, branched low—suitable for a Southern climate.

- A large and full supply of APPLES, PEARS, PLUMS, CHERRIES, NECTARINES and HARDY GRAPES.
- 20,000 APPLE SEEDLING STOCKS,
- 20,000 SILVER MAPLE SEEDLINGS,
- 20,000 ASPARAGUS ROOTS.

RHUBARB and CRANBERRY PLANTS in large quantities. Especial attention is given to the culture of SMALL FRUITES, and those which prove hardy and most profitable for market are extensively grown.

Having 25 acres planted with Strawberries, Raspberries and Blackberries, and a portion of each, being in full bearing, yielded as follows:

Strawberries.....	\$600.00 per acre.
Raspberries.....	220 00 " "
Blackberries.....	530 00 " "

Plants reasonable. Descriptive Catalogues gratis. Address WILLIAM PARRY, Cinnaminson, New Jersey. Sept. 1860.—31

A. BROWER'S

Patent Water-Proof Composition,

WARRANTED to make Boots and Shoes, and all Leather impervious to water, and last nearly as long again for using it. Peddlers make from \$2 to \$5 per day selling it. Send stamp for circular. For sale by all dealers in Boots and Shoes, Hardware, Drugs, Notions and Groceries. A. BROWER & CO., May—6t, 4 Reade Street, New York.

BLOOMINGTON NURSERY, Illinois.—FRUIT AND ORNAMENTAL TREES, a large stock cheap for cash. Apple, 1 to 4 years, 1,000, \$25 to \$55. Stocks, 1 year, selected, 10,000, \$30. Gooseberry, Houghton, strong, 100, \$4. Raspberry, many sorts, 100, \$2 to \$5. Strawberry, Wilson's, Early Scarlet, Crimson Cone, Iowa, or Washington, and others, Pure, 100, \$1; 1,000, \$5. Thrifts, 100, of 20 named sorts, Double and Single, \$1. Root Grafts, 1,000, \$50; &c., &c., as per Lists. Cash orders in full packed free. Oct.—26* F. K. PHOENIX.

100,000 First-class Apple Trees.

FOR SALE to the trade at GREATLY REDUCED PRICES.—Also, Cherry, Standard and Dwarf Pear, Peach and Plum Trees, Grapes, Currants, &c. Address E. BOARDMAN & SON, Monroe St. Nurseries, Rochester, N. Y. Oct.—2t

FEMALE AGENTS WANTED.

\$3 A DAY.—Agents Wanted to travel for the MAMMOTH "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts., for a specimen copy, to MARIÉ LOUISE HANKINS & Co., Publishers, 182 Nassau st., New York City. Aug.—11

GROVER & BAKER'S

NOISELESS



FAMILY SEWING MACHINE.

THE undersigned, CLERGYMEN of various denominations, having purchased and used in our families "GROVER & BAKER'S CELEBRATED FAMILY SEWING MACHINE," take pleasure in recommending it as an instrument fully combining the essentials of a good machine. Its beautiful simplicity, ease of management, and the strength and elasticity of its stitch, unite to render it a machine unsurpassed by any in the market, and one which we feel confident will give satisfaction to all who may purchase and use it.

- | | |
|--|---------------------------|
| Rev. W. P. STRICKLAND, | } <i>New York.</i> |
| Rev. N. VANSANT, | |
| Rev. R. E. YARD, | |
| Rev. E. P. RODGERS, D.D., | } <i>Albany, N. Y.</i> |
| Rev. W. B. SPRAGUE, DD., | |
| Rev. J. N. CAMPBELL, DD., | |
| Rev. CHARLES ANDERSON, | } <i>Auburn, N. Y.</i> |
| Rev. CHARLES HAWLEY, | |
| Rev. DANIEL H. TEMPLE, | |
| Rev. T. M. HOPKINS, | |
| Rev. WILLIAM HOSMER, | |
| Rev. O. H. TIFFANY, D.D., | } <i>Baltimore, Md.</i> |
| Rev. C. J. BOWEN, | |
| Rev. JONA. CROSS, | |
| Rev. JOHN MC'RON, D.D., | |
| Rev. W. T. D. CLEMM, | |
| Rev. E. C. GALBRAITH, <i>Govanston, Md.</i> | |
| Rev. T. DAUGHERTY, <i>Waynesboro, Pa.</i> | |
| Rev. THOS. E. LOCKE, <i>Westmoreland Co., Va.</i> | |
| Rev. W. A. CROCKET, <i>Norfolk, Pa.</i> | |
| Rev. J. F. LANNEAN, <i>Salem, Va.</i> | |
| Rev. CHAS. HANKEL, D.D., <i>Charleston, S. C.</i> | |
| Rev. A. A. PORTER, <i>Selma, Ala.</i> | |
| Rev. JOSEPH J. TWISE, <i>Speedwell, S. C.</i> | |
| Rev. B. B. ROSS, <i>Mobile, Ala.</i> | |
| Rev. J. L. MICHAUX, <i>Enfield, N. C.</i> | |
| Rev. A. C. HARRIS, <i>Anderson, N. C.</i> | |
| Rev. HENRY A. RILEY, <i>Montrose, Pa.</i> | |
| Prof. W. D. WILSON, D.D., <i>Geneva, N. Y.</i> | |
| Rev. ALBERT SLINGERLAND, <i>Scotia, N. Y.</i> | |
| Prof. JOHN FOSTER, | } <i>Schenectay,</i> |
| Rev. FRANCIS G. GRATZ, | |
| Rev. J. TURNBULL BACKUS, D.D., | } <i>N. Y.</i> |
| Rev. P. C. PRUGH, <i>Kenia, O.</i> | |
| Rev. B. W. CHIDLAW, A.M., <i>Cincinnati, O.</i> | |
| Rev. E. GRAND GIRARD, <i>Ripley, O.</i> | |
| Rev. A. BLAKE, | } <i>Gambier, O.</i> |
| Rev. E. C. BENSON, A.M., | |
| Rev. J. J. McELIENNY, D.D., | |
| Rev. F. CHESTER, <i>Ironton, O.</i> | |
| Rev. E. F. HASTY, <i>Cambridge City, Ind.</i> | |
| Rev. J. C. ARMSTRONG, <i>Saline, Mich.</i> | |
| Rev. ARTHUR SWAZEY, <i>Galena, Ill.</i> | |
| Rev. ENSTEIN MORBOUGH, <i>Cambridge City, Ind.</i> | |
| Rev. RICHARD WHITE, <i>Milton, Ind.</i> | |
| Rev. CALVIN VALE, <i>Martinsburgh, N. Y.</i> | |
| Rev. JOSEPH ELDRIDGE, <i>Norfolk, Conn.</i> | |
| Rev. JOHN JENNINGS, | } <i>Worcester, Mass.</i> |
| Rev. H. L. WAYLAND, | |
| Rev. WILLIAM PHIPPS, | } <i>Concord, N. H.</i> |
| Rev. OSMOND C. BAKER, Bishop
of M. E. Church, | |
| Rev. THOS. RATHAY, | |
| Rev. G. N. JUDD, <i>Montgomery, N. Y.</i> | |
| Rev. A. M. STOWE, <i>Canandaigua, N. Y.</i> | |
| Rev. WILLIAM LONG, <i>Cliff Lane, Mich.</i> | |

Offices of Exhibition and Sale:—495 Broadway, New York. 15 Summer Street, Boston. 730 Chestnut Street, Philadelphia. 131 Baltimore Street, Baltimore. 53 West Fourth Street, Cincinnati. 124 North Fourth Street, St. Louis. 115 Lake Street, Chicago. 13 Newhall House, Milwaukee. 5 Merrill Block, Detroit. 171 Superior Street, Cleveland.

SEND FOR A CIRCULAR.

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SPALDING'S PREPARED GLUE!

SAVE THE PIECES!

ECONOMY!

DISPATCH!

"A STITCH IN TIME SAVES NINE."

As accidents will happen, even in well-regulated families, it is very desirable to have some cheap and convenient way for repairing Furniture, Toys, Crockery, &c.

SPALDING'S PREPARED GLUE

meets all such emergencies, and no household can afford to be without it. It is always ready and up to the sticking point. There is no longer any necessity for lumping chairs, splintered veneers, headless dolls, and broken cradles. It is just the article for cone, shell, and other ornamental work, so popular with ladies of refinement and taste.

This admirable preparation is used cold, being chemically held in solution, and possessing all the valuable qualities of the best cabinet-makers' Glue. It may be used in the place of ordinary mullage, being vastly more adhesive.

"USEFUL IN EVERY HOUSE."

N. B.—A Brush accompanies each bottle. Price, 25 cents.

Wholesale Depot, No. 30 Platt Street, New York.

Address HENRY C. SPALDING & CO.,
Box No. 3,600 New York.

Put up for Dealers in Cases containing four, eight, and twelve dozen—a beautiful Lithograph Show-Card accompanying each package.

A single bottle of SPALDING'S PREPARED GLUE will save ten times its cost annually to every household.

Sold by all prominent Stationers, Druggists, Hardware and Furniture Dealers, Grocers, and Fancy Stores.

Country Merchants should make a note of SPALDING'S PREPARED GLUE, when making up their list. It will stand any climate.

SPALDING'S PREPARED GLUE!

USEFUL IN EVERY HOUSE.

SPALDING'S PREPARED GLUE,

SOLD BY STATIONERS.

SPALDING'S PREPARED GLUE,

SOLD BY DRUGGISTS.

SPALDING'S PREPARED GLUE,

SOLD BY HARDWARE DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY HOUSE-FURNISHING STORES.

SPALDING'S PREPARED GLUE,

SOLD BY FURNITURE DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY FANCY-GOODS DEALERS.

SPALDING'S PREPARED GLUE,

SOLD BY GROCERS.

SPALDING'S PREPARED GLUE,

SOLD BY COUNTRY MERCHANTS GENERALLY.

Manufactured by

HENRY C. SPALDING & CO.,
45 Cedar Street, New York.

Address Post-Office, Box No. 2,600.

Dec., 1859.—1y

\$100 PER MONTH—Made with STENCIL TOOLS, so arranged that any one can use them. For samples and particulars, address, (enclosing two red stamps) Nov.—11, G. B. BRIGDEN, Norwich, Conn.

5,000 AGENTS WANTED—To sell 5 new inventions—very recent and of great value to families. ALL pay gr. at profits to agents. Send four stamps and get 80 pages of particulars. Nov.—61* EPHRAIM BROWN, Lowell, Mass.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Geneesee Farmer and Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address if **JOSEPH HARRIS, ROCHESTER, N. Y.**

CONTENTS OF THIS NUMBER.

Fattening Sheep in Winter.....	329
Agricultural Exhibitions.....	331
New York State Fair. Ohio State Fair.....	331
Michigan State Fair. Iowa State Fair.....	332
Spirit of the Agricultural Press.....	333
Fruit Trees in the Vicinity of Barn-Yards.....	333
Change of Seed. Tee Houses. Hemp in Minnesota.....	333
Preservation of Cut Flowers. Mulchlug Wheat.....	333
Maine Items.....	332
Discussions at the N. Y. State Fair.....	334
On Cross Breeding.....	337
Preserving Sweet Potatoes.....	340
A Model Macadamized Road.....	340
Choice of a Breed of Cattle. Rats—Potato Bug.....	341
Sowing Peas in the Autumn.....	341
Tudor Cottage.....	342
The Domestic Turkey—Peculiar Habits, etc.....	343

HORTICULTURAL DEPARTMENT.

Fruit-Grower's Society of Western New York.....	345
About Trees and Country Life.....	348
Grapes in California.....	349
Duchesse d'Angouleme Pear.....	350
Seedling Trees.....	350

LADIES' DEPARTMENT.

Original Domestic Receipts.....	351
Ladies, Write for the Farmer.....	351

EDITOR'S TABLE.

The Genesee Farmer for 1861.....	352
Notes on the Weather.....	352
Subjects for Prize Essays.....	353
The Markets.....	353
Inquiries and Answers.....	354
Books, Pamphlets, &c., Received.....	355

ILLUSTRATIONS.

Shropshire Down Wether.....	381
The Old Wiltshire Sheep.....	335
Design for a Tudor Cottage.....	342
A Domestic Turkey Cock.....	344
Dwarf Pear Tree—the Duchesse d'Angouleme.....	350

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

BY JOSEPH HARRIS.

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

☞ All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

The Postage on the *Geneesee Farmer* is only 3 cents a year in the State of New York, and 6 cents a year in other States.

Specimen numbers sent free to all applicants.

The address of papers can be changed at any time.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.

Address

JOSEPH HARRIS,

Publisher and Proprietor, Rochester, N. Y.

THE GENESEE FARMER.

FOR 1861.

In order that our friends may see that we are determined to do all that we can to recompense them for their generous efforts to extend the circulation of the *Geneesee Farmer*, we announce thus early our List of Cash Prizes to be awarded to those who send us the largest clubs of subscribers on or before the fifteenth day of January, 1861. Last year, our highest Prize was \$25; this year, encouraged by our increased circulation, we head the list with a Prize of Fifty Dollars in Cash! and in order that our friends may have time to do all that they can to extend our circulation on, and to give those residing in places where we now have but few subscribers an equal chance with those where the *Farmer* is better known, we have concluded to send the *Geneesee Farmer* for the three remaining months of this year and the entire volume for 1861, for Fifty Cents! This will give all our friends who intend to compete for these Premiums an opportunity to commence at once.

January Cash Premiums.

1. FIFTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers for the next volume of the *Geneesee Farmer* before the 15th day of January, 1861.
2. THIRTY DOLLARS in Cash to the person who shall send the second highest number, as above.
3. TWENTY DOLLARS for the third list.
4. FIFTEEN DOLLARS for the fourth.
5. TEN DOLLARS for the fifth.
6. NINE DOLLARS for the sixth.
7. EIGHT DOLLARS for the seventh.
8. SEVEN DOLLARS for the eighth.
9. SIX DOLLARS for the ninth.
10. FIVE DOLLARS for the tenth.
11. FOUR DOLLARS for the eleventh.
12. THREE DOLLARS for the twelfth.
13. TWO DOLLARS for the thirteenth.
14. ONE DOLLAR for the fourteenth.

In competing for the above Premiums, it must be borne in mind that no subscription is taken for less than a year. Those wishing the paper for the last three months of this year, must send fifty cents for each subscriber, and the subscriber will then get the paper for fifteen months, viz: the October, November and December numbers of this year, and the entire volume for 1861. Those who wish the paper to commence with the January number for 1861, can have it in clubs, as hitherto, at 37½ cents each per annum.

SPECIFIC PREMIUMS.

1. To every person who sends us Eight Subscribers, (at 50 cents each, for the fifteen months—October, 1860, to December, 1861, inclusive—or at 37½ cents for the year 1861) we will send, postage paid, a copy of the *Rural Annual* for 1860, or, as soon as published, for 1861.

2. To every person who sends us SIXTEEN subscribers, (as above) we will send one extra copy of the *Geneesee Farmer*, and one copy of the *Rural Annual* for 1860, or 1861.

3. To every person sending us TWENTY-FOUR subscribers, (as above) we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

Those who send more than twenty-four will probably take one of the Cash Prizes. If not, Specific Premiums will be sent in the same ratio as the above.

Clubs are not required to be at one post-office, or sent to one address. We send the papers wherever the members of the club desire. It is not necessary that the club should be sent in all at one time. Names can be added at any time, and all that are sent in before the fifteenth of January will be counted in. Send on the names with the money as fast as they are obtained.

☞ Money may be mailed at our risk, and you need not "register" the letters.

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,

September 1, 1860.

ROCHESTER, N. Y.

THE Genesee Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER.

VOL. XXI, SECOND SERIES.

ROCHESTER, N. Y., DECEMBER, 1860.

No. 12.

THE NUTRITIVE VALUE OF DIFFERENT FOODS.

It is a matter of great importance to determine the relative nutritive value of substances used as food for farm stock. Unfortunately, our knowledge on this subject is exceedingly limited. It was at one time supposed that the quantity of nitrogen in different food represented their relative value. Recent experiments show that, if this rule holds true in a majority of cases, there are a great many

exceptions to it. Still it is interesting to know the quantity of nitrogen in different foods, for although this does not represent their nutritive value, it *does* show their relative value as manure—whether used directly as such, or first fed to animals, and their droppings carefully preserved and used afterward. The following table will be found useful for this purpose, at least, and is interesting, as embodying the opinions of men eminent in agricultural science:

TABLE OF NUTRITION—EQUIVALENTS.

ARTICLES OF FOOD.	THEORETICAL VALUES.						PRACTICAL VALUES, AS ESTIMATED BY DIRECT FEEDING EXPERIMENTS, ACCORDING TO—								
	Boussingault.				Fresenius.		Block.	Petri.	Meyer.	Thaer.	Pabel.	Schwartz.	Middleton.	Boussingault.	Schweizer.
	Water in 100 parts.	Nitrogen in 100 parts of dry substance.	Nitrogen in 100 parts of undried substance.	Nutritive equivalent.	Relative proportion of nitrogenized to non-nitrogenized substances.	Nutritive equivalent.									
Meadow hay.....	11.0	1.34	1.15	100	..	100	100	100	100	100	100	100	100	100	100
Lucerne.....	16.6	1.66	1.38	83	..	..	..	90	..	90	100	100	..	..	..
Red clover hay.....	19.1	1.70	1.54	75	1: 6.05	77.9	100	90	..	90	100	110	..	..	..
Red clover (green).....	76.0	..	0.64	811	..	..	430	..	..	454	425	..	..	..	..
Eye-straw.....	18.7	0.30	0.24	479	1: 24.40	527 7-12	200	500	150	666	350	..	..	..	267
Oat-straw.....	21.0	0.36	0.30	383	1: 12.50	445 5-12	200	200	150	194	200	400	..	..	200
Barley-straw.....	11.0	0.30	0.25	460	1: 29.30	471 2 1/2	193	180	150	150	200	400	..	..	200
Wheat-straw.....	26.0	0.36	0.27	426	1: 14.20	438 5-12	200	36	150	450	300	..	..	..	233
Pea-straw.....	8.5	1.45	1.79	64	..	..	165	200	150	180	150	..	..	..	..
Buckwheat-straw.....	11.6	0.54	0.48	240	..	..	..	200	..	..	..	..	..	..	..
Lentil-straw.....	9.2	1.18	1.08	114	..	..	160	200	..	130	150	..	..	..	..
Vetches, mown in flower and dried.....	11.0	1.16	1.04	101	..	..	..	125	..	100	..	..	..	..	..
Potato stalks.....	76.0	2.30	0.55	209	..	..	..	300	..	..	..	..	..	..	..
Mangold leaves.....	88.9	4.50	0.50	230	..	..	600	..	..	600	..	..	..	..	616
Carrot leaves.....	70.9	2.94	0.85	135	..	..	..	..	..	..	..	..	..	..	..
Swedes.....	91.0	1.83	0.17	676	..	..	..	300	..	300	250	200	..	..	..
Mangold-wurzel.....	..	..	..	..	1: 7.26	391 1/2	366	400	250	460	250	333	..	..	366 1/2
White Silician beet.....	85.6	1.43	0.18	669	..	..	..	..	..	..	..	..	..	..	..
Carrots.....	87.6	2.40	0.31	332	1: 7.84	542 1	366	250	22 1/2	300	250	270	338	380	300
Potatoes.....	75.9	1.50	0.36	819	1: 9.	339 5-11	216	200	150	200	200	..	..	..	200
Potatoes kept in pits.....	76.8	1.15	0.30	383	..	..	400	..	..	..	..	..	..	..	..
Vetches (seed).....	14.6	5.13	4.37	26	..	..	30	54	..	66	40	..	..	..	32
Beans.....	7.9	5.50	5.11	23	1: 2.8	34 5-12	30	54	50	73	40	..	..	..	30
Peas.....	8.6	4.22	3.84	27	1: 2.14	34 1/2	30	54	48	66	40	..	..	..	30
Lentils.....	9.0	4.42	4.00	29	1: 1.87	32 1-12	..	..	..	..	..	..	..	..	..
Indian corn.....	18.0	2.00	1.64	70	1: 6.55	..	..	52	..	..	..	..	..	..	59
Buckwheat.....	12.5	2.40	2.10	55	1: 6.05	93 5-12	..	64	..	..	..	..	..	..	..
Barley.....	13.2	2.02	1.76	65	1: 4.23	..	..	33	61	53	70	50	..	..	35
Oats.....	12.4	2.22	1.92	60	1: 4.08	58 11-12	39 1/2	71	..	86	60	..	..	..	37 1/2
Rye.....	11.5	2.27	2.00	58	1: 4.42	58 1-16	33	55	51	71	50	..	..	..	33 1/2
Wheat.....	10.5	2.33	2.09	55	1: 4.22	83 5-6	27	52	46	64	40	..	..	..	30
Bean.....	13.8	2.77	2.30	50	..	..	..	..	..	..	..	..	..	..	..
Rice.....	13.4	1.89	1.20	96	1: 14.8	147 1/2	..	..	..	..	..	..	..	..	..
Linseed-cake.....	13.4	6.00	5.20	22	..	..	42	108	..	..	..	..	..	..	43
Rape-cake.....	10.5	5.50	4.92	24	..	..	..	..	..	..	..	..	..	..	..
Hemp-cake.....	5.0	4.78	4.21	27	..	..	..	..	..	..	..	..	..	..	..
Pump-cake.....	6.8	5.70	5.36	21	..	..	..	..	..	..	..	..	..	..	..

The use of this table, (assuming it to be correct,) will be readily perceived. Thus 75 lbs. of clover hay contains as much nitrogen (that is, albumen,

or the so-called flesh-forming constituents,) as 100 lbs. of meadow hay. This, according to BOUSSINGAULT, indicates that 75 lbs. of red clover

hay is equal in nutritive value to 100 lbs. of meadow hay. PETRI & THAER estimate, from their experiments in feeding, that 90 lbs. of clover hay is equal to 100 lbs. of meadow hay; while BLOCK, PABET & SCHWERZ estimate meadow hay to be equal to clover hay. It will be seen that the theoretical estimate of clover hay is higher than the feeding trials will sustain. On the other hand, the practical farmers estimate carrots higher than chemists. The practical men, however, differ considerably among themselves as to the value of carrots. Thus, MEYA thinks 250 lbs. of carrots equal to 100 lbs. of hay, while BLOCK thinks it will take 366 lbs. According to BOUSSINGAULT's analysis, it requires 382 lbs. of carrots to afford as much nutriment as 100 lbs. of meadow hay. The reason of this difference is probably owing to the method of feeding. A small quantity of carrots given in conjunction with dry food, will give a healthier tone to the system, and enable the stomach to digest the food better, and thus afford better results, than the mere amount of nutriment in the carrots would indicate. On the other hand, if carrots formed the principal food, this advantage would, in a great degree, be lost. It will be seen that BOUSSINGAULT's own experiments in feeding cattle give results nearly identical with the theoretical estimate.

The same is true of other roots. They act, when given in small quantities, as a kind of tonic, or condiment. Thus ruta-bagas, or Swedes, are estimated very much higher by the practical men than by BOUSSINGAULT. Analysis indicates that 676 lbs. of ruta-bagas are only equal to 100 lbs. of hay, while PETRI and THAER think 300 lbs., and SCHWERZ 200 lbs. of this root is equal to 100 lbs. of hay.

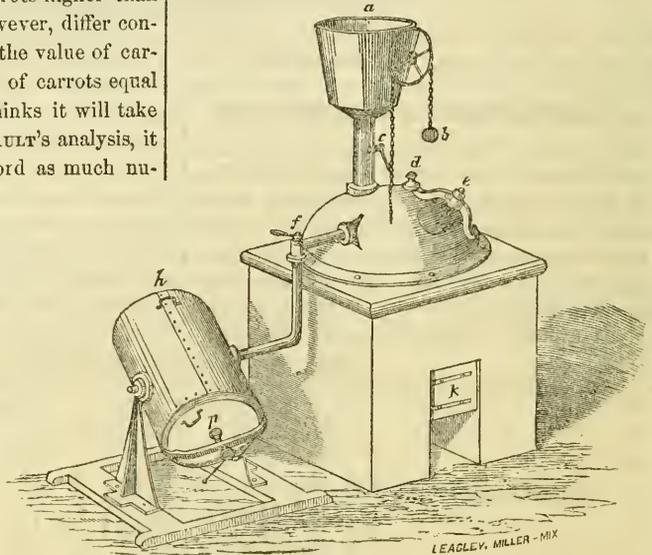
There are many other points in the table worthy of attention, but the careful reader will not fail to see them. BOUSSINGAULT finds from his feeding experiments that Indian corn is more nutritious than his analysis indicates. This is undoubtedly the case; while it is equally true that peas and oil-cake, though highly nutritious, are somewhat over-estimated by theoretical writers.

CURE FOR SCOURS IN CALVES.—Take skimmed milk and scald it; let it cool and skim again; put a table spoonful of powdered resin for a dose three times a day.—J. P.

COOKING FOOD FOR CATTLE.

OUR opinion has been asked in regard to the advantages of cooking food for cattle, and the best apparatus for the purpose.

That cooking renders our ordinary cattle-food more easily digestible we think there can be no reasonable doubt. Whether the gain in this respect is equal to the cost and labor of cooking is another



RICHMOND'S STEAMING APPARATUS.

a, is the reservoir of water. *b*, balances the float on the water, and indicates its level. *c*, is the cock by which the water in the reservoir is allowed to enter the boiler, when *b* rises so high as to show that the boiler requires it. *d e*, is the opening corresponding to the "man-hole" in larger boilers, by which the interior may be examined and cleaned. *f*, the cock in the steam-pipe, by which the communication between the food and the boiler is opened or cut off. *h*, the fire-place. *h p*, the cylindrical receptacle for the food; *k* being the handle by which, when the top *p* has been removed, the cylinder is tilted up for the removal of its contents.

question. This would depend on a variety of circumstances. When food is cheap, it can not be cooked with as much profit as when it commands a higher price. With corn at 25 cents a bushel, and hay at a proportionate price, we cannot believe, as some assert, that cooking food for cattle can be profitable. Even in Great Britain, where cattle food is usually much higher than in this country, it is still a mooted question, after many years of trial, whether food can be profitably cooked for cattle. For swine, it is very generally considered profitable in England, to steam roots, potatoes, &c.—Grain is seldom either cooked for swine or cattle. The usual practice in fattening hogs is to grind barley or peas, and mix the meal with the steamed roots. Barley is often boiled whole for horses, and we can confidently recommend the practice from our own experience.

There can be no doubt that the process of cook-

ing renders some portion of the food soluble that would otherwise be improperly digested. It also, in some cases, removes unwholesome matter, and renders that savoury which would otherwise be distasteful. A case of this kind is mentioned in a recent number of the French *Journal d'Agriculture Pratique*. The refuse of immature sugar-beets, that proved deleterious to cattle, was rendered wholesome by steaming it. Mouldy hay, that cattle will eat only when starved to it, is devoured heartily after it has been cut into chaff and steamed.

In regard to the best apparatus for cooking food, there can be no doubt that steaming is much more convenient and economical than boiling, *except in the case of grain*. Dry steam will not cook sound, hard grain, unless it has been previously soaked in water; but for all other purposes steam is better than boiling water. There are quite a variety of steaming apparatus, but they all consist essentially of a boiler for generating the steam, and of a pipe for conveying it to the reservoir containing the food. It is convenient, for the purpose of filling and unfilling, that this reservoir should be slung upon bearings, so that it shall hang freely in any position, whether full or empty; and if the nozzle of the steam-pipe itself be one of these bearings, the mode of applying the steam to the material is greatly simplified.

We annex a cut of one of the best forms of steaming apparatus used in Great Britain.

EXPERIMENTS WITH ARTIFICIAL MANURES ON OATS.

We have made some experiments this year with a few artificial manures as a top-dressing for oats.

The land was a clover-sod, plowed about the middle of May, and the oats sown May 20th. On the 26th of May, just as the oats were coming through the ground, the land was top-dressed with the following manures per acre:

- No. 1—No manure.
- " 2—600 lbs. of Plaster.
- " 3—300 lbs. Superphosphate of Lime.
- " 4—300 lbs. Sulphate of Ammonia.
- " 5—300 lbs. Superphosphate of Lime, and 300 lbs. of Sulphate of Ammonia.

The oats were sown too late to obtain the best results. On another field of the same character where the oats were sown, about two weeks earlier, the crop was decidedly better. The experiments, however, were made with care, and are worthy of being put on record. The oats were cut August 28th. The straw and grain were both accurately weighed. This was done by weighing

the whole crop—hay and straw—at the time it was drawn into the barn. After thrashing, the grain was weighed, and the amount deducted from the total weight of the crop. The chaff, therefore, is included with the straw. The result was as follows:

No.	Straw, per acre.	Grain, per acre.	Bushels per acre.	Weight, per bus.	Total, straw & grain
1	1,955 lbs.	792	36	22	2,750
" 2	2,475 "	1,225	47	26	3,700
" 3	2,475 "	1,050	50	21	3,525
" 4	2,750 "	1,100	50	22	3,850
" 5	2,575 "	1,150	51	22½	3,725

The most striking result is the effect of plaster, (gypsum or sulphate of lime,) on the quality of the grain. The oats on all the plots, owing to the late seeding, were very light, but where the plaster was used they were 4 lbs. per bushel heavier than on the unmanured land. In addition to this there was an increase of 11 bushels of oats and 950 lbs. of straw per acre from the use of plaster.

It is very evident that phosphate of lime had very little effect on oats on this land. The superphosphate used was a very superior article,* but contained—as a good article of superphosphate of lime always must contain—about 50 per cent. of plaster. Now this mixture of soluble phosphate of lime and plaster, (in other words, "superphosphate of lime,") did no more good than the plaster alone on No. 2, and therefore we may conclude that the addition of phosphate of lime was not needed on this soil for the oat crop. True, the plaster was applied in much larger quantity, but still it furnished no phosphates. Then, again, on No. 5, the superphosphate and ammonia together produced no more total produce than the ammonia alone on No. 4—in fact, not quite as much, though there is a slight increase of grain.

As we have before remarked, the oats on No. 2, where plaster was sown, weighed more per bushel than on any other plot. Taking the weight per bushel on the unmanured plot (22 lbs.) as the standard, the result would be as follows:

No. 1	—No manure,	- - -	36	bus. per acre.
" 2	—With Plaster,	- - -	55½	" "
" 3	—With Superphosphate,	-	47¾	" "
" 4	—With Sulphate Ammonia,	50	"	"
" 5	—With Superphosphate and Sulphate of Ammonia, together	52	"	"

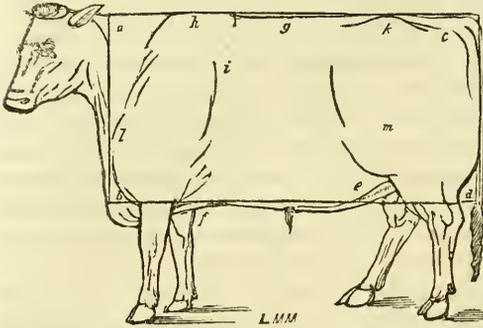
There are several points in these results which we do not understand, and farther experiments are needed to enable us to come to anything like satisfactory conclusions.

* We had two tons of superphosphate of lime manufactured from burnt bones last spring under our own directions, expressly for experimental purposes. A better article could not be made, and yet on oats, potatoes and corn, it has done little good—not as much as plaster. This is in accordance with our former experiments. There may be soils where a direct application of phosphates is needed for corn and other cereals, but we think this is not the case, as a general rule, in Western New York.

RULES FOR JUDGING FAT CATTLE.

STEVENS, in his "Book of the Farm," gives some rules for judging fat oxen, from which we make a few extracts:

"When you look at the *near* side of a *ripe* ox in profile—and this is the side usually chosen to begin with—whatever be its *size*, imagine its body to be embraced within a rectangled parallelogram, as in



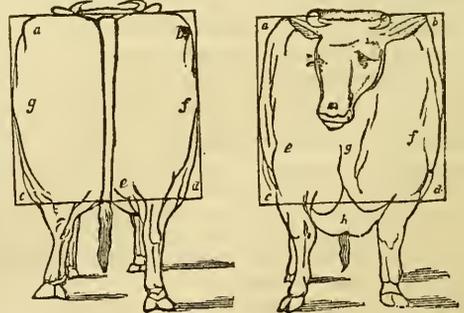
THE SIDE VIEW OF A WELL FILLED-UP FAT OX. (FIG. 1.)

fig. 1; and if the ox is filled up in all points, his carcass will occupy the parallelogram $abcd$ as fully as in the figure; but in most cases, there will be deficiencies in various parts—not that *all* the deficiencies will occur in the same animal, but different ones in different animals. The flank e , for instance, may be shrunk up, and leave a space there to the line; or the brisket f may descend much farther down than is represented; or the rump c may be elevated much above the line of the back; or the middle of the back g may be much hollowed below the line; or the top of the shoulder h may be much elevated above it; or a large space may be left unfilled in the hams above d . Then a similar survey should be made behind the animal; the imaginary line should inscribe it also within it the perimeter of a rectangled parallelogram, though of different form from the other, as represented in fig. 2, where the breadth of the hook-bones, a and b , is maintained as low as the points c and d ; and the *closing* between the legs at e is also well filled up. This figure gives a somewhat exaggerated view of the appearance of a fat ox behind; but still it gives the form of the *outline* which it should have. Then go in front of the ox, and there imagine the outline of the body at the shoulder, inscribed within a rectangled parallelogram $abcd$, fig. 3, of exactly the same dimensions as the one in fig. 2. The shoulder, from a to b , is apparently of the same breadth as across the hook-bones, from a to b , fig. 2. The off-side of the animal may of course be expected to be similar in outline to the near side. Having thus obtained an idea of the outline which a fat ox should have, let us now attend to the filling up of the area of the parallelogram.

On looking again at the near-side view, fig. 1, observe whether the ribs below and on each side of g are rounded, and nearly fill up the space between the more projecting points h and k , that is, between the shoulders and the hook. Observe also whether the shoulder h is flat, somewhat in the same plane as g , or more rounded and promi-

nent; and whether the space behind the shoulder, at i , is hollow or filled up. Observe, again, whether the shoulder-point l is projecting and sharp, or rounded off; and whether the neck between a and l is flat and sunk, or sweeps finely in with the shoulder. Observe yet more, whether the muscles at m are thin and flat, or full and rounded; and whether the hook-bone k projects or sinks in, or appear to connect itself easily with the rump c on the one hand, and with the ribs g on the other. With all these alternative particulars before you, they should be arranged in the following manner, to constitute *points* in perfection.

The line from the shoulder to the hook, from h to k , fig. 1, should be parallel to the back-bone. The space on each side of g , along the ribs from g to h , and along the loins from g to k , does not fall in with the line h and k , but should be a little nearer, and almost as high as the back-bone, with a rounding fall of the ribs down the side of the animal. The loin, from k to g , should be perfectly flat above, on the same level as the back-bone, and drop down on this side, in connection with the utmost rounding of the ribs. The point of the hook k should just be seen to project, and no more; and the space between it and the rump c should gradually sweep round to the narrower breadth of the pelvis, as seen from a to c or b to c in fig. 4. i is placed at the utmost bend of the ribs, along which a straight line should touch every point through i , from the front of the shoulder to the buttock. The triangular space comprehended within ah and l , should gradually taper from the shoulder-point to the head. A straight line from l , the shoulder-point, should touch every spot from it to m . The line of the back should be straight from a to c ; the tail should drop perpendicularly from c to d ; and the belly should sweep level, not high at e nor dropping at f . There are thus three straight lines along the side of a fat ox, from a to c , one through i , and from l to m . Proceeding behind the animal to fig. 2, the space between the hooks, from a to b , should be level, but a little rounded off at both ends, and the bone at the top of the tail only being allowed to project a little upward



THE HIND VIEW OF A WELL FILLED-UP FAT OX. (FIG. 2.) THE FRONT VIEW OF A WELL FILLED-UP FAT OX. (FIG. 3.)

The muscles on each side below the hooks, at g and f , when fuller than the hooks, is no *deformity*, but should they be no fuller, they are right. The muscles at c and d , down the side of the hams, are allowed to sweep gradually toward the hock joints of the legs. The *closing* at e should be well filled

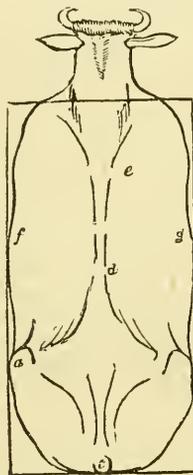
up to furnish the rounds fully, but freely, for *packed* rounds prevent easy motion of the hind legs. Sometimes the tail is hid in a channel left by the muscles between *e* and *f*, but this is not usually the case. On going to the front view, fig. 3, the shoulder-top, between *a* and *b*, should be filled out with a natural round, and the muscles below it upon the shoulder-blades should always project farther than the breadth of the shoulder-top, and in this respect the fore-quarter differs from the hind, where the muscles below the hooks seldom project beyond them. The shoulder-points *e* and *f* should not be prominent, but round off with the muscles of the neck toward *g*, where the round of the front of the neck falls from the head to the breast, where the upper part of the brisket *f* meets it, and projecting a little in front, is rounded below and forms the lowest part of the body of a fat ox, and should be well filled out in breadth to spread the fore-legs asunder. The fore-legs are usually farther apart than the hind, but the hind at times, when the *shaw* or *cod* is large and fat, is as much or even more apart.

The objectionable deviations from these points are as follows: In fig. 1, a hollow back at *g* is bad, showing weakness of the back-bone. A high shoulder-crest at *h* is always attended with a sharp thin shoulder, and has the effect of bringing the shoulder-tops, *a* and *b*, fig. 3, too close together. A long distance between *g* and *k* makes the loins hollow, and gives to a beast what is called a *washy* appearance, and is always attended with a liability to looseness in the bowels. This washiness is generally attended with an inordinate breadth of hooks, from *a* to *b*, fig. 2, and causes them to project much beyond the muscles below. A sharp projecting hook is always accompanied with flat ribs at *g*, fig. 1, and ribs when flat give the animal a hollow side, which bears little flesh, the viscera being thrown down into the cavity of the belly, which droops considerably below the line; but in the event of the muscles of the abdomen having a greater weight to bear, they become thicker and stronger, and, accordingly, the flesh there becomes less valuable, and it has also the effect of thinning away the thick flank *e*. Flatness of rib is also indicative of hollowness of the space behind the shoulder, so much so, indeed, that the animal seems as if it had been gripped in too firmly there. As the flesh is taken away from the shoulder-blade by a sharp shoulder and hollow ribs, so the shoulder-joint *l* projects the more, and causes a thinness of the neck between *a* and *l*. The rump bone, at *e*, frequently rises upward, thereby spoiling the fine straight line of the back; and whenever this happens, the rump between *k* and *e* wants flesh and even becomes hollow, thereby much deteriorating the value of the hind-quarter. A projecting hook *k* also thins away the muscles about *m*, and behind it to the rounds; and this again is followed by an enlargement of the openings at the closing *e*, fig. 2. Whenever the shoulder becomes thin and narrow, when viewed in front, as in fig. 3, the shoulder-points *e* and *f* are wider than from *a* to *b*, and while this effect is produced above, the brisket *h* below becomes less fat, and permits the fore-legs to stand nearer each other. A greatly commendatory point of a fat ox is a level broad back from rump to shoulder, because all the flesh seen from this position, as is

endeavored to be represented by fig. 4, is of the most valuable description; where the triangular space included between *a*, *b*, *c*, is the rump; the triangular space between *a*, *b*, *d*, the loin; and the space between *d* and *e*, deflecting on both sides toward *f* and *g*, the ribs, the value of all which parts are enhanced the more nearly they are all on a level with each other.

All that I have endeavored to describe, in these paragraphs, of the points of a fat ox, can be judged of alone by the eye, and most judges never think of employing any other means; but the assistance derived from the hand is important, and in a beginner can not be dispensed with. The first point usually

huddled is the end of the rump at the tail-head, at *e*, fig. 1, although any fat here is very obvious, and sometimes attains to an enormous size, amounting even to deformity. The hook-bone *k* gets a touch, and when well covered, is right; but should the bone be easily distinguished, the rump between *k* and *e*, and the loin from *k* to *g*, may be suspected, and, on handling these places, the probability is that they will both be hard, and deficient of flesh. To the hand, or rather to the points of the fingers of the right hand, when laid upon the ribs *g*, the flesh should feel soft and thick and the form be round when all is right, but if the



BACK VIEW OF A WELL FILLED FAT OX. (FIG. 4.)

ribs are flat the flesh will feel hard and thin, from want of fat. The skin, too, on a rounded rib, will feel soft and mobile, the hair deep and mossy, both indicative of a kindly disposition to lay on flesh. The hand then grasps the flank *e*, and finds it thick, when the existence of internal tallow is indicated. The cod is also fat and large, and on looking at it from behind seems to force the hind legs more asunder than they would naturally be. The palm of the hand laid along the line of the back from *e* to *h* will point out any objectionable hard piece on it, but if all is soft and pleasant, then the shoulder-top is good. A hollowness behind the shoulder at *i* is a very common occurrence; but when it is filled up with a layer of fat, the flesh of all the fore-quarter is thereby rendered very much more valuable. You would scarcely believe that such a difference could exist in the flesh between a lean and a fat shoulder. A high narrow shoulder is frequently attended with a ridged back-bone, and low-set narrow hooks, a form which gets the appropriate name of *razor-back*, with which will always be found a deficiency of flesh in all the upper part of the animal, where the best flesh always is. If the shoulder-point *l* is covered, and feels soft like the point of the hook-bone, it is good, and indicates a well-filled neck-vein, which runs from that point to the side of the head. The shoulder-point, however, is often bare and prominent. When the neck-vein is so firmly filled up as not to permit the points of the fingers into the inside of the

shoulder-point, indicates a well tallowed animal; as also does the filling-up between the brisket and inside of the fore-legs, as well as a full, projecting, well-covered brisket in front. When the flesh comes down heavy upon the thighs, making a sort of double thigh, somewhat like the shape at *d* and *e*, fig. 2, it is called *lyary*, and indicates a tendency of the flesh to grow on the lower instead of the upper part of the body. These are all the *points* that require *touching when the hand is used*; and in a high-conditioned ox, they may be gone over very rapidly.

SHEEP IN CALIFORNIA.

WE have met with capitalists who have invested largely in sheep, some of them buying their five, ten, or twenty thousand head at the commencement, thinking they could make it pay, in accordance with the extraordinary increase known to attend this valuable animal in California. Most of these persons, thus purchasing largely, have failed to meet their anticipations, and in no long time, have been found selling off their large flocks in small parcels, as they could best find purchasers. This exactly demonstrates what has long been an admitted principle of business, that if you would achieve eminent success, it must have its commencement from small beginning; because, in the small business of an enterprise, one becomes thoroughly acquainted with all those minute details which qualify for the successful management of those of increasing dimensions.

In no department of industrial life does this rule apply with greater force than in the business of sheep raising. Where the capitalist begins with his five thousand, or more, as may be, he is not likely to have made suitable arrangements for their proper care. The idea is entirely too prevalent, that sheep need no feeding in winter, except what they can glean from the barren fields; then again, there will not be adequate shelter from the storms; or perhaps they are crowded into suffocating pens, so that they smother, or are infected from contact with diseased animals, which would have been removed, had they been in subdivided lots, so as to have been within frequent observation. We are satisfied that, in order to make wool-growing a highly remunerative business to California, it must fall into the hands of a great number of small proprietors; or where it is under extensive ownership, it must be farmed out to persons of sufficient intelligence to learn the habits of this tender animal. Doubtless, if large sheep owners were to subdivide their flocks into not more than one thousand in each, and give them in charge of suitable persons on shares, it would be better for the capitalist, than to have them kept in large droves under stupid and careless hirelings.

As an instance of individual success from a small beginning, we trust we shall be pardoned for making public a statement given us by our old friend B. F. RYNDEES, formerly a merchant at San Antonio, Alameda county, now a resident of Livermore valley. In December last, Mr. RYNDEES bought three hundred and forty American ewes, with a slight cross of French merino, and four half-blood merino bucks. The ewes cost six dollars each, and the bucks fifty each, making and outlay, for stock,

of two thousand two hundred and forty dollars. He has sold eighteen hundred lbs. of wool at twenty cents—three hundred and sixty dollars—and has four hundred and sixty lambs, worth five dollars each, as they are nearly half-blood merino, which is two thousand two hundred dollars: which, with fleeces sold, makes the sum of two thousand five hundred and sixty dollars, as the product of a six months investment of two thousand two hundred and forty dollars.—*California Culturist*.

SALT FOR WORKING CATTLE—AGAIN.

EDS. GENESEE FARMER:—"O. W. T.," of Elm Tree Farm, Maine, in the *Genesee Farmer*, for Oct., page 309, answers inquiries about "Salt for Working Oxen," and hopes others will do the same. Deeming the conclusions erroneous, to which friend "O. W. T." arrives, from his and BOUSSINGAULT's experiments, I accept his invitation to answer also.

It has never, to my knowledge, been claimed by any scientific experimenter that the use of salt in any way (unless applied to the land,) increases the flesh or fat of animals; on the contrary, the most careful experiments of man go to show that it diminishes rather than increases the amount of fat, and acting on this theory, its liberal use is prescribed for obesity; but it is not on this account recommended to the lean to abstain from it. Its moderate use is known (begging the pardon of the vegetarians,) to be conducive to health; and if, as our Maine friend says, there is salt enough in the constituents of the food of cattle, is there not full as much in man's food, aside from what he put in himself. And still no man without a hobby, has ever discovered that man should not salt his potatoes if it improves the relish. All our domestic animals, as well as all the wild ruminates, have a relish for salt, and it seems to be required by them rather as a medicine than a condiment, or as food; for none seem to desire it daily throughout the year; and those who do not live near it make long pilgrimages to obtain it, and when the appetite is satiated, they return to their old haunts.

I do not believe that the indulgence of a natural appetite ever leads man or beast into error; still, if that natural appetite is not gratified, disorder, or weakness of the digestive organs may ensue in consequence, which, if followed by full indulgence, may produce bad effects. From no other reason than this, I venture to say, was any animal ever injured by any quantity of salt he chose to eat.

All brutes have habits peculiar to their species, and though many of them seem unaccountable, still I think none are without their use. The hen wallows in the dirt, the horse rolls in the ploughed ground, and the ox paws the dirt, and rubs his neck against the bank of earth, all for one purpose, to prevent or destroy the vermin, with which they are liable to be infested, and if left free to act for themselves they never suffer from vermin while the ground is bare, unless they become too weak to help themselves. It is very interesting to observe with what precision the cow, with her round sole, will throw the dirt upon her back; the horse will eat earth; the hog ashes and charcoal; the bird lime and pebbles; and all to supply some want of the body. Salt is destructive to internal vermin, to which all animals are more or less liable, and it

is said that no horse has the botts which has all the salt he craves.

But this is not the only use of salt in the animal economy, as we shall see. BOUSSINGAULT's experiment was evidently for the purpose of testing the direct effect of salt upon the production of fat or flesh. Mr. DICKINSON, of Steuben Co., N. Y., finds by experiment, that his cattle thrive better without shade. He is surely good authority; but his experiments would have been more conclusive, as regards health and longevity, if he had experimented upon his roadsters for a series of years.

As to the effect of salt upon health, I beg leave to quote from Prof. JAMES F. JOHNSON, of Scotland, who has evidently made the subject a study:

"The wild buffalo frequents the salt-licks of North-western America; the wild animals in the central parts of Southern Africa are a sure prey to the hunter, who conceals himself behind a salt spring; and our domestic cattle run peacefully to the hand that offers them a taste of this delicious luxury. From time immemorial it has been known that without salt man would miserably perish; and among horrible punishments, entailing certain death, that of feeding culprits on saltless food, is said to have prevailed in barbarous times. Maggots and corruption are spoken of by ancient writers as the distressing symptoms which saltless food engenders; but no ancient, or unchemical modern, could explain how such sufferings arose. Now we know why the animal craves salt; why it suffers discomfort, and why it ultimately falls into disease if salt is for a time withheld. Upwards of half the saline matter of the blood (57 per cent,) consists of common salt; and as this is partly discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore, and neither will the bile be able properly to assist the digestion, nor the cartilages to be built up again as fast as they naturally waste."

And now, I would say to our friend A, let your horses, oxen, sheep and pigs, have all they will eat, and the surest way is to let them have access to clear salt at all times; only if they have suffered from abstinence, be cautious at first, just as you would with yourself, if you had suffered long with hunger.

SANTÉ.

Muskegon, Mich., Oct., 1860.

HOW TO THROW AN OX.

EDS. GENESEE FARMER:—A few mornings since, the little boys said to me: "Grandpa, Dimon steer (a stout one three years old,) has got the heel and ankle of his left hind foot filled with hedgehog quills."

I soon found that if I attempted to do much with him, while standing, I should be likely to have his foot in my face. Forthwith I called help from the neighbors, obtained a bullet-mold for nippers, and took head-ropes from the stable.

We placed the steer on smooth ground, and commenced operations by taking up his left or near side fore foot, and tying the foot fast to the leg above the knee; next reaching under the belly and

tying a rope around the ankle of both the off side fore and hind feet.

Placing a man the off side of his neck to attend to his head in the fall; myself and another man the near side, each hold of a rope fast to the ankle, commenced pulling gently on the ropes—crowding a little at the same time against his sides. The steer, as though understanding he had rather lie down than to catch a fall, readily dropped on his knees and down upon his side. The rope on the fore foot was brought over his shoulder and held, and the rope on the hind foot carried back and held. The steer lay with but little struggle; with the bullet-mold the quills were soon all drawn out, and the steer went off well.

L. HENDRICK.

Sweden, Potter Co., Pa.

WEEK EYES IN CATTLE—BREEDS OF HORSES.

EDS. GEN. FARMER:—In the July Number, is an inquiry whether there can be anything done for a cow, whose eyesight fails at sun set. In answer, I would say there can, if done in season. I have had great experience in the care and management of stock for the last twenty-five years, and have seen three cases exactly like the one described, with this addition: the cows could not see in a cloudy day. In two cases it was caused by Hooks, a disease which all Stock Raisers are acquainted with; where this is the case the film skin that covers the lower part of the eye ball, becomes enlarged and looks inflamed. Cure.—Take a needle and draw a thread through the enlarged part, raise it up and cut it off; this disfigures the eye a little. Another plan is to put a rowel in about two inches below the eye. The other case was caused by the hollow horn, this was cured by removing the cause.

On the same page is an inquiry as to what is the best breed of horses for harness. I would say, from experience and observation, raise horses that will weigh from eleven to thirteen hundred lbs., of a stock that are reasonable travelers, like the old Messenger, or Duroc breed, then you always have horses that can perform labor; but if you undertake to raise smaller and faster stock, like the Black Hawk or Morgan, if you do not get a colt that will command a price for speed, which is only one in a hundred, you have an inferior animal for farm purposes because he is too light for the plow.

Cass Co., Mich.

JAMES A. LEE.

CHEAP LAND IN CONNECTICUT.

THE *Homestead*, published at Hartford, Ct., in alluding to Mr. WATSON's pamphlet on the uncultivated lands of Long Island, remarks:

We have thousands of acres in Connecticut, really uncultivated, whatever they may be called, that can be purchased as cheaply as those Long Island lands, and that may be redeemed more economically. They do not lie in a wilderness, like most of the pine barrens, where the churches and school houses are to be built, and the roads and bridges are to be made, and the brush and trees are to be cleared off, and the fields are to be fenced. They lie in the midst of civilization, and of religious institutions, the fences all made, within sound of the railroad whistle and the church-going bell. The school house, with white walls and green

lands, is just round the corner, and the grist-mill at the foot of the hill. There is a hungry market within an hour's ride of the door, for everything that can be raised on the soil.

Many of these lands can be bought for twenty dollars an acre, with all the buildings upon them, for from five to ten dollars an acre without the buildings. All that is needed to bring them up to a high state of productiveness, and to make them pay the interest on two hundred dollars per acre, is skill and capital. To make money by farming, pure and simple, we believe there is no better field than these cheap farming lands in our own State. If a man wants to speculate or to get rich by the gradual rise of lands, let him go West. But if he wants to gain a competence, and a comfortable home, and to educate his children for usefulness and happiness, let him develop the resources of these neglected, half-tilled farms.

ANIMAL FOOD AND BREAD.—A paper was recently read before the London Chemical Society by Dr. GILBERT, on the composition of the animal portion of human food, and on its relations to bread. The general conclusions were, that only a small proportion of the increase of a fattening animal was composed of nitrogenous matter; that from five to ten per cent. only of the nitrogenous matter of the food was stored up in the body of the animal; but that the amount of fat stored up was frequently greater than the amount supplied in the food, despite the loss incurred in the maintenance of the respiratory functions. Hence, the comparative value of fattening foods was proportional rather to the amounts of respiratory than of assumed flesh-forming constituents. It was calculated that in those portions of the carcasses of oxen actually consumed as human food, the amount of fat was from two to three times as great as the amount of dry nitrogenous matter; and in the lean portions of the carcasses of sheep and pigs, more than four times as great. By substituting the above proportions of fat, their respiratory equivalents in starch, so as to allow of a comparison between meat and bread, the ratios become six to seven to one, and eleven to one respectively. From various determinations made by a number of experimenters, it appeared that in wheat bread the ratio of starch to nitrogenous matter was six to seven to one; so that in bread the proportion of animal flesh-forming constituents to respiratory constituents was greater than the eaten portions of sheep and pigs, and quite equal to that of the eaten portions of oxen—a conclusion altogether opposed to the prevalent notions on the subject.

KEEP RATS OUT OF THE GRANARY—DOLLARS IN POCKET.

GEN. FARMER:—D. N. D., in the October number of the *Farmer*, inquires, "What is the best method of keeping rats out of the corn-crib or granary." Now the "root of all evil" in this case usually lies in the manner of building. It is a matter of some difficulty to build a corn-crib or granary so tight that it will effectually resist the perseverance of these destructive little animals. I will give your correspondent and readers a plan which, if followed, may be the means of saving a great quantity of grain which would otherwise be destroyed.

Frame the building in the ordinary way, and the difference in construction must be in the foundation. Instead of the common stone foundation, select good sticks of oak timber, from 14 to 16 inches in diameter, and about 6 feet in length. These should be sunk firmly in the ground about 3 feet deep, leaving the tops to project out of the ground about 2½ feet. The top of these pillars above ground should be hewn and planed very smooth into the shape of a frustrum of a cone, the upper diameter of which may be 6 or 7 inches. Place caps two feet square upon the pillars, and rest the sills upon them. The points of support in any building should not be wider apart than 8 feet. Quite clear of every obstacle the granary must be kept, and no communication with the ground allowed to remain, other than the posts which support it, or the rats will climb up; but since they can not walk like a fly on the ceiling, if the plan I have given is adopted, my word for it, your correspondent will have no rats in his corn-crib.—HENRY B., Ohio.

DICKENS ON DONKEYS.

I HAVE KNOWN a donkey—by sight; we were not on speaking terms—who lived over on the Surrey side of London bridge, among the fastnesses of Jacob's Island and Dockhead. It was the habit of that animal, when his services were not in immediate requisition, to go out alone, idling. I have met him a mile from his place of residence, loitering about the streets; and the expression of his countenance at this time was most degraded. He was attached to the establishment of an elderly lady who sold periwinkles, and he used to stand on Saturday nights with a cartful of delicacies outside a gin-shop, pricking up his ears when a customer came to the cart, and too evidently deriving satisfaction from the knowledge that they got bad measure. His mistress was sometimes overtaken by inebriety. The last time I ever saw him (about five years ago), he was in circumstances of difficulty, caused by this failing. Having been left alone with the cart of periwinkles, and forgotten, he went off idling. He prowled about his usual low haunts for some time, gratifying his depraved taste, until, not taking the cart into his calculations, he endeavored to turn up a narrow alley, and became greatly involved. He was taken into custody by the police, and the Green Yard of the district being near at hand, was backed into that place of durance. At this crisis I encountered him; the stubborn sense he evinced of being—not to compromise the expression—a blackguard, I never saw exceeded in a human subject. A flaring candle in paper shade, stuck in among his periwinkles, showed him, with his ragged harness broken, and his cart extensively shattered, twitching his mouth, and shaking his hanging head, a picture of disgrace and obstinacy. I have seen boys taken to the station-house, who were as like him as his own brother.—*All the Year Round.*

BEE STEALING.—The Sacramento (California) Apiarian Society, offers a reward of \$50 for satisfactory evidence of any one who is in the way of setting up decoy hives for catching other people's bees.

LIME AND WHEAT.

GEORGE H. CHASE, an enterprising young farmer of Union Springs, N. Y., has tried an experiment the present season with salt, ashes, and lime, on wheat. An acre each was selected for the three experiments. About two barrels of salt were applied to one, two two-horse loads of ashes to a second, and a hundred bushels of lime to the third acre. The result has not been measured as yet, but the effects of each are very visible. The salt proved least useful; the ashes more so; and the lime most so of all. The line of superiority marking the boundaries of the limed portion was as distinct as a line fence. The increase of the crop by liming, over the portions not dressed with anything, is at least ten bushels per acre.

The question occurs whether a smaller quantity of lime would not have produced an equal result. This will receive the test of another trial. The land is a strong or clayey loam; and, what is worthy of notice, is in the midst of a limestone region, where the country is underlaid by the rocks of the corniferous limestone, which is abundantly scattered over the surface. But acids do not show carbonate of lime in the surface soil.—*Co. Gent.*

SUGGESTIONS ON MENTAL AND PHYSICAL LABOR.

If theory and practice are inseparably dependent on each other for success, why do we find so many men denouncing the theoretical? If your neighbor has success in following the idea of his *new plan*, as you term it, why will you not leave your time-worn practice, and take advantage of expensive experiments?

The order of things must change in proportion to the change of things themselves. The farm in its virgin state needed but slight cultivation to produce as much or even more than it will now by force of application. If I can crop successfully by applying a theory that has proved adaptable to a certain section, why should I be opprobriously termed a book-farmer? As for me, I love to scan and sort the ideas of others, and apply them so far as I am conscious of their practical utility.

If the scientific man finds it imperative to develop both the mental and physical, has not the farmer the same functions? Is he not more intimately connected with nature—organic and inorganic? That which a man sees every day should be familiar; and it is not only a privilege, but a duty, that we should extend our knowledge to our fellow men. Others taught you; why not teach them? thereby complying with the design of human nature, and feeling satisfied that you have benefited one or more of the human family. There are none so illiterate as not to have their own influence.

The mind can comprehend more in a moment of time than the hands can perform in months or years—an invaluable agent. If calculation is economy, why not exercise its power and enlarge its basis? How many extra steps it might have saved had I only had my wits about me, says one; if I had only *thought* to have put a bolt, small screw, piece of rope or string, or even a nail, in my pocket this morning; but the accident requires it, and off we must go to get a supply. Time to the farmer is precious, especially at certain seasons; and here is labor for the mind. Man determines the amount

to be done and the time to do it in, and his perfect calculation will make the two meet.

He that is capable of performing much, let him perform much, and he little, perform little. There are many men that can accomplish more with the brain than half a dozen with their hands, and derive as much profit. Why is it? If calculation is applicable to every action, why can not some persons, when conducting one piece of labor, conduct more at the same time, and not get some of "their irons burnt."

Many workmen commence without thinking how long they are to be employed. This should not be. Cause the muid to perform a part; study into all the ingenious contrivances of the day and age, and apply them; devise for yourselves. If the farmer is not to be a thinking man, who is? Who has a greater number of questions and ideas to perplex the brain? w.

Penfield, N. Y.

SHOULD SEED WHEAT BE BROUGHT FROM THE SOUTH OR NORTH?

EDS. GENESEE FARMER:—I perceive from the remarks of N. S. N., in July number of the *Farmer*, that the mooted question of "Whether wheat for early ripening should be brought from the North or 'South,'" is yet unsettled.

Near the city of Edinburgh, in Scotland, is a tract of land cultivated by intelligent, scientific farmers. These practical men, every two or three years, import their seed wheat from the London market, three or four hundred miles south of them, and it pays well, as they gain two weeks or more in that cool, dripping climate—where I recollect the papers stating, one wet season, they had not been able to gather their oats yet in December.

For corn, the very reverse of this should be the rule. If it is important to have corn to ripen early, bring it from the North, where it must mature early or be caught by the frosts. I have raised corn, Gourd seed, from the rich Miami bottoms near Cincinnati; it grew large and very promising, but its habit of late ripening exposed it to frost in the last of September, and but few sound ears could be found in a ten-acre field. c. p.

Mansfield, O.

JOHN WALTON'S FARM.

"HADN'T you better subscribe for it?"

"I tell you, no. I haint got the money to spare; and, if I had, I haint got the time to waste over newspapers," said Eben Sawyer, with some emphasis.

"But you will gain much information from it in the course of the year, sir," pursued John Walton.

"I tell you, I don't want it!"

"Well, what do you say, Mr. Grummet? Shan't I have your name?"

"No, sir!" This was spoken so flatly and bluntly, that Walton said no more; but folded up the prospectus of a periodical which he had with him, and then turned away.

Eben Sawyer and Ben Grummet were two old farmers—that is, old at the business, though they had only reached the middle age of life: and after their young neighbor had gone, they expressed their opinion concerning him.

"He'll never make a farmer," said Sawyer, with

a shake of the head. "He spends too much time over them papers and books of his'n. He's a leetle mite above farmin', in my opinion."

"Them's my sentiments," responded Grummet. "I tell you, Eben, a man that thinks to make a livin' on a farm in this country, has got to *work* for it."

At this juncture, Sam Bancroft came past. He was another old native of the district.

"We was just talkin' about young Walton," said Sawyer.

"I've just come from there," replied Sam.

"He's been borin' me to sign for a paper; but he couldn't come it!"

"Ha, ha!—so he bored us. He's gettin' a leetle too high for a farmer."

"He's rippin' his barn-floor up!" said Bancroft.

"Rippin' the floor up!" repeated Grummet.

"Why, Mr. Amsden had the whole floor put down new only three years ago."

"The stable floor, I mean," pursued Bancroft. "He's got a carpenter up from the village, and his two hired men are helpin'."

"Whew! I opine he'll make a farmer!"

And so they all opined—with a reservation. In short, there was something highly ridiculous in the thought of a man thinking to be a farmer and a student at the same time; and all sorts of jests were discharged over it.

John Walton was a young man—some five-and-twenty; and though he had been born in the neighborhood, yet much of his life had been spent in other portions of the country. His parents both died when he was quite young, and his father's farm passed into the hands of a Mr. Amsden. But now John had married, and he meant to be a farmer; and his thoughts naturally turned to the old homestead. He found Amsden willing to sell, and he bought—paying five hundred pounds down, and giving a note and mortgage for five hundred, which had been cashed by Mr. Piddon.

This farming district was upon a broad ridge of land, which had been cleared for a great many years; and though they were the handsomest and smoothest-looking farms in the parish, yet they were by no means the best. The summit of the ridge was crowned by a ledge of granite, and the soil, over the whole broad swell, was more or less wet and cold. This was particularly the case with John Walton's farm, some portions of it being wholly unfit for cultivation. There was one field of over twenty acres which was never fit for plowing. The soil was so wet and heavy that it never had been worked to any advantage; yet there was some good land upon it, and Mr. Amsden had gained fair crops while he lived there.

Ben Grummet had a curiosity to see what was going on in Walton's barn, so he dropped in there. He found that the whole of the floor, where the cattle stood, had been torn up, and that they were digging a wide, deep trench, the whole length of the tie-up.

"What's all this for?" asked Ben.

"Why," returned Walton, who was busy in superintending the work, and also in working himself, "I am having a placed fixed here for making manure. I mean to fill this trench up with good muck, and thus save the liquids which have heretofore been lost. I think, by proper management,

I can get full double the quantity of manure which others have got on this place."

"Do ye?" said Grummet, sarcastically.

"Yes," resumed the young man. "It is a fact that the liquid manures, could they be saved, would fully equal the solids, both in bulk and value; and when combined with well-rotted muck, and some other articles which shall take up and retain all the more volatile parts, I feel sure that they will afford more fertilizing powers and properties than the solid manures can."

"You don't say so! Where d'ye larn all that?"

"Partly from reading, and partly from observation," answered John, smiling at his good neighbor's open sarcasm.

"I don't s'pose it costs anything to do all this?"

"Oh, yes, it will cost me considerable before I get through."

"Yes: I should think 't would."

"I say!" he cried, as he met Sawyer shortly afterward. "John Walton's about as high bein' crazy as a man can be!"

"Eh?—crazy, Ben?"

"Oh, he's got his head full of all sorts of nonsense. He's got his stable floor all torn away, and a trench dug there big enough to hold mor'n twenty cart-loads of dirt."

"But what in natur's he goin' to do?"

"Why, he's goin' to save the liquids, as he calls 'em! And he's goin' to put in somethin' to take up the—the—*vol—voluntary* parts."

"*Voluntary* parts? What's them, Ben?"

"It was *vol* somethin'. But I don't know. I wouldn't ask him. I s'pose he just used the outlandish word so's to get me to ask him what it meant—an' then he'd show off his larnin'. But I wasn't so green."

"I wonder if he thinks he's a comin' here to larn us old farmers how to work?" said Sawyer, rather indignantly.

"He thinks so," returned Grummet.

"Then he'll find out his mistake," added the other. "You mark my words, Ben. He'll be flat on his back afore two years is out!"

And these were not the only ones who looked for the same thing. The idea of a man's coming in there with any such new-fangled notions, was absurd.

Autumn came, and after John Walton had mowed over his twenty-acre field—some of his coldest and stiffest land—getting hardly hay enough to pay for the labor, he set men at work digging deep trenches all over it. He had two dug lengthwise, running up and down the slope; and then he dug quite a number running across these. They were quite deep and broad, and into them he tumbled nearly all the stones that could be found in the fields.

"A pooty expensive way of gettin' rid o' rocks," remarked Grummet.

"It's a better place for them than on the surface, isn't it?" returned Walton, with a smile.

"Perhaps. But what on earth are ye doin' it for?"

"Why, I'm going to see if under-draining won't improve the land."

"*Under-draining!* What's that?"

"It is simply drawing off the water from the surface. This land is cold and wet; but if I can get the water to drain off among these rocks, the sun

may warm the surface, and give me a good piece of soil here."

But it looked very foolish to Ben Grummet. He believed that "what was the natur' of the soil couldn't be altered."

"That's a cur'us contrivance," said Sam Bancroft. He and Ben Grummet had been at work for Walton at hauling muck. He alluded to a large vat at the back of the house, into which ran a spout from the sink. The vat was capable of holding several cart-loads of stuff, and was already half full.

"That's a compost vat," explained Walton, who had overheard the remark. "All the slops from the house, the soap-suds, and such stuff, which most people waste, I save by this means, and turn to good account; and instead of throwing away refuse matter, I put it in here, and let it rot and ferment, and make manure."

"But what's this charcoal dust for?"

"It answers two purposes, though by only one office. It takes up the ammonia and other volatile matter, thus holding them for fertilizing agents; and, at the same time, prevents the disagreeable effluvia which would otherwise arise from such a fermenting mass."

"That all sounds very well," remarked Ben, after Walton had left them; "but, let me tell you, *it don't pay!* He'd better let such fandanglers alone, if he ever expects to make a livin' at farmin'."

Before the ground froze in, Walton threw out most of the muck behind his stable, which had become well saturated, and filled the trench up anew.

The old farmers had a great many apple trees, and made a great deal of cider; but the fruit was of an inferior quality. When spring came, Walton went to some of his neighbors, and asked them to go in with him, and send for some good scions to engraft upon their apple trees. He explained to them just the plan he had formed for his own orchard. He had engaged a competent man to come and do the work of grafting, and, while they were about it, it would be cheaper to get grafts enough for the whole neighborhood.

It was of no use. The old orchards were just such as their fathers had, and they were good enough. So Walton went at it alone. He had his trees all pruned and dressed, and nearly all of them grafted to such fruit as he thought would thrive best and sell best.

A little while later, and Ben Grummet had occasion to open his eyes. He found that John Walton had contrived to have one hundred and forty full loads of manure, all of which had been made within the year. However, he finally shook his head, and said, "Wait; we'll see if it's good for anything."

A little while later, and the grass began to spring up on the twenty-acre lot as it had never sprung up before. The two acres, which had been plowed and harrowed up light and fine, bore the best crop of corn that was grown in the whole county, and all the manure put upon it was some which had been manufactured.

And so the time went on, and John Walton was continually studying how to improve his farm. At the expiration of a few years, the new scions had grown large and strong in his orchard, and began to bear fruit. He had taken care of his trees, and they were about ready to return him interest for the labor.

"Good gracious!" ejaculated Eben Sawyer, as Ben Grummet and Sam Bancroft came into his house one cool autumn evening, and the three filled their mugs with new cider; "have you heard about John Walton's apples?"

"I knew there was a man up to look at 'em," returned Ben; "but I ain't heard no more."

"Well, I was there, and heard the whole on't—so I know—I never would 'ave thought it. An orchard turn out like that!"

"But how much was it?"

"Why, Walton was offered—cash right down—a hundred pounds for the apples he's got on hand; and he tells me that he sent nearly fifty pounds' worth of early fruit off a month or more ago."

It was wonderful—more than wonderful! But they had to believe it.

"And look at that twenty-acre field," said Bancroft. "Ten years ago it wouldn't hardly pay for mowin'; now look at it. Think o' the corn and wheat he's gained there; and this year he cut more'n forty tons of good hay from it!"

"But that ain't half," interposed Sawyer. "Look at the stock he keeps; and see what prices he gets for his cows and oxen. Why, he tells me he's cleared over four hundred pounds this year on his stock."

At this moment Mr. Walton came in. He had grown older, and was somewhat stouter than when he first became a farmer; and his neighbors had ceased to question his capacity, and had come to honor and respect him.

"We was talkin' about you, Mr. Walton," said Sawyer.

"Ah!" returned John, as he took a seat by the fire. "I hope you found nothing bad to say of me."

"Not a bit of it. We was talkin' about the wonderful improvements you've made on the old place, and of the money you make."

"And do you think it wonderful?"

"But ain't it?"

"Well," replied Walton, "I don't know about that; but I'll tell you what I do know. I know there is no class of people in the world who may study the arts and sciences to better advantage than farmers; and yet, I am sorry to say, there is no class, as a class, occupying the same social position who read and study less; of course there are many honorable exceptions. Farming is a science—one of the most deep and intricate—and he must be a man of more than ordinary capacity who can master it all. But farmers must not be afraid of books; they won't, if they are wise, follow every advice which experimentalists give; but they may study, and reason, and experiment for themselves. So I have done, and so I mean to do."

"He's right!" remarked Ben Grummet, after Walton had gone. "What fools we was that we didn't go into that graffin' operation!"

"And that underdrainin'," added Bancroft.

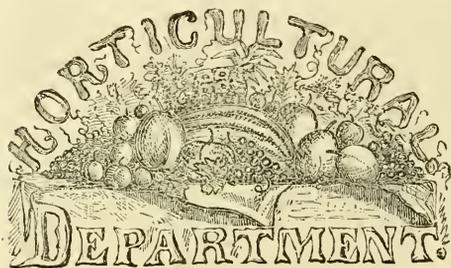
"And that muck and compost arrangement," suggested Sawyer.

"Well," said Ben, with a serious face; "it isn't too late now. They say, it's never too late to learn; and I'm sure it hadn't ought to be too late to commence to improve after a body has learned."

"True as a book!" added Bancroft.

"Good evening!"

"Good evening!"



THE CULTIVATION OF BLACK CURRANTS FOR WINE IN FRANCE.

PROF. DECAISNE in his recent work, the *Jardin Fruitier*, publishes a communication from Dr. MAILLARD, of Dijon, in regard to the cultivation of Black Currants for the manufacture of liqueur in the Department of the Côte-d'Or.

It appears that the first attempts at preparing Black Currant liqueur were made in 1841, and since that time the manufacture has so rapidly increased, that at Dijon alone there are now three first-class houses, producing together 88,000 gallons; six second-class ones producing 66,000 gallons, and at least 20 others manufacturing a like quantity. Establishments also exist at Beaune, and other small towns in the same district; producing in all, 880,000 bottles.

"Up to the present time the production of the article in the Côte-d'Or has depended upon the supply of fruit, which has frequently proved unequal to the demand, and has had to be brought from considerable distances. Even in the neighborhood of Lyons, Black Currants are now cultivated for the Dijon market. For the first few years, when the success of the manufacture remained uncertain, the owners of vineyards confined themselves to planting Black Currants here and there among Vines, and by the sides of roads and footpaths, so as not to risk any considerable outlay of capital or loss of ground. But the manufacture is now so well established that landowners are cropping their land with Black Currants alone, the number of plants introduced into Vineyards being also on the increase. The rage, indeed, for planting was so great in 1857 that rooted plants sold as high as \$16, and even \$24 per thousand. Now, however, price has found its usual level, that of \$4 to \$6 per thousand. The exact number of plants cultivated round Dijon does not seem to be ascertainable, the proprietors themselves not knowing how many they have planted. It is, however, probable that to estimate the number near Dijon at 1,500,000 would be greatly below rather than above the mark.

"In the Department of the Côte-d'Or, the centre of Currant cultivation exactly coincides with that of the Vine. In fact, it may be said to extend from Chagny to Dijon, in a narrow zone skirting the eastern slope of the mountain chain of the Côte-d'Or, 18 to 25 miles in length, and from one to

three miles in breadth. Within these narrow limits are to be found all the great growths of Burgundy wine, connected by Vineyards only producing *Vin ordinaire*. It is among these, and in land of a similar nature, that the Black Currant is cultivated. Many of the villages producing large quantities of the latter, are noted for the excellence of their vines, as for example—Volnay, Beaune, Aloxe, Savigny, Prèmeaux, Nuits, Vongot, Chambollo, Vosne, Morey, Gevrey-Chambertin, Brochon, Fixin, Marsannay, Talant, Fontaine. Leaving this centre the Currant follows the Vine in the valleys that traverse the mountain range toward the west; there are extensive plantations at Nolay, Plombières, Malain, Laumes, and Montbard, and others occur occasionally in the large and fertile plain which extends from the foot of the Côte-d'Or chain to the Saône, and in which the Vine is not cultivated. Finally they are to be found in the department of the Saône-et-Loire, particularly in that part of it which adjoins the Côte-d'Or. Rather considerable plantations also occur near Autun and Châlon-sur-Saône.

Contrary to what might have been expected in fruit with so strong a flavor, there exist great differences in the quality of the Currants from different localities. The French liqueur makers easily distinguish them, and carefully reserve Currants of superior quality for first-class liqueur, which sells as high as 66 cents per quart, wholesale. In general, indeed, wherever wine is good the Currant is also good. By this is not meant the choice growths but *vins ordinaires*, the vines producing which are frequently grown along with Currants."

The Currants are planted about 4 feet apart, and the after culture consists in hoeing the ground deeply in the spring, and two or three hoeing's during the summer to keep down the weeds. Pruning is done in the spring, at the same time with the Vines. As to soils, chalk or limestone, with a little clay in its composition, such as prevails in French wine districts, suits very well.

In regard to amount of fruit, and the price that can be obtained for it, Dr. MAILLARD estimates that every bush that has been planted five years, when the land is wholly occupied with the Currants, will yield 3½ lbs. of fruit. The yield on bushes growing singly among the grape vines is much greater. Estimating the average yield at only 2 1-5 lbs. to a bush, and 2,240 bushes on an acre, we have 4,928 lbs. as the produce per acre. The average price of the fruit in former years was, in 1841, 80 cents per cwt.; in 1842 and '43, \$1; 1844 and '45, \$2; 1856 and '57, \$4; 1858, \$7.50, and in 1859, from \$5 to \$7. It appears that some of the most important houses in Dijon have contracted with growers to take all their crops for 10 or 12 years to come at \$3 per cwt. This would give \$147 per acre as the price of the fruit. The trouble of growing Black Currants is very little, and they make a delicious and healthy wine, far superior to what is usually sold under the name of Port.

SCATTERED NOTES ON HORTICULTURE.

J. J. THOMAS, of the *Country Gentleman*, has recently visited some places in the West, and communicates to that journal some interesting "Scattered Notes of Travel," from which we make a few extracts. At Cleveland, Ohio, Mr. T. visited Dr. KIRTLAND, justly celebrated for the number of seedling cherries of great value that he has originated. Mr. THOMAS says:

"Dr. KIRTLAND informed us, in reply to a question as to the secret of his great success in originating new varieties of the cherry, that he began in 1812, and for several years was quite unsuccessful. His knowledge of physiological botany however, led him to adopt the practice of crossing, and he had practiced the modes of both VAN MONS and KNIGHT before he had heard of either. After many years of experimenting, he found that the *Yellow Spanish* cherry (Bigarreau of Downing,) afforded the best results, and that the seed of this sort would grow freely, while other improved varieties did not vegetate. He therefore adopted the *Yellow Spanish* for seed, and planted on one side of the selected tree, and in close proximity, a *Black Tartarian*, on another a rich *Mazzard*, on the third a *May Duke*, and on the fourth the early *Swedish*. The branches all intermingling, and bees being abundant in the neighborhood, nearly every seed was a cross. The young seedlings thus obtained, were carefully examined, and those only selected that exhibited by their large buds and leaves a promising appearance. Only about two per cent. were thus chosen. These selected trees, when of suitable size, were transplanted for bearing, and given freely to the neighbors on condition that they should allow them to fruit. The long line of trees which bordered the fields and roadsides in the neighborhood, indicated the extent of these experiments. Not more than one per cent. of all that bore, proved of sufficient value to recommend for cultivation; that is, only one in five thousand of the first seedlings."

Dr. KIRTLAND regards the *Cuyahoga* grape as the best of all the new American sorts, being superior to either *Diana* or *Delaware*—vigorous, very hardy, as early as the *Diana*, and as delicious as the best exotic kinds. Specimens were sent last year to the New York State Fair, and by an amusing but very natural mistake, pronounced by the fruit committee the best new *exotic* variety.

At Cleveland, as in this section, many pear trees have been injured or destroyed by the fire blight. The *Northern Spy* apple, after being nearly rejected for its non-productiveness, is bearing full crops this season, and promises to be as valuable at Cleveland as in the most favorable localities in Western New York. The *Porter* succeeds finely and the *Early Joe* is excellent.

Cleveland has long been famed for its fruits, and is situated in one of the best fruit regions in the United States, the protection afforded by Lake Erie often saving the crop when it is destroyed further south. The Heart varieties of cherries flourish there with eminent success, while as far south as Columbus they are usually attended with failure.

At Mt. Pleasant, Ohio, (ten miles from Wheeling, Va.) Mr. T. made a short call at the residence of JAMES H. GILL, who occupies a fine farm of several hundred acres, and who also gives considerable attention to the culture of fruit.

"He finds the *Duchesse d'Angouleme* pear, (dwarf,) which has been reported as a failure some parts of the State, to grow and bear well, specimens sometimes weighing a pound and a quarter. The *Louise Bonne of Jersey*, as elsewhere, bears profusely. The *Catawba* grape, which until within a year or two has succeeded well, and always ripened its crop perfectly, now rots badly. He thinks a less luxuriant growth, with perhaps a dry bottom, would

prevent it. His peach orchard, intended only for crops for home use, is kept well enriched in vigorous growth; and after using all he could in his family the present year, sent the remainder to Wheeling, where the crop brought readily two dollars per bushel, and occasionally five cents a piece, while the market was flooded with less excellent fruit at a dollar and half a dollar per bushel. Two hundred dollars were received from 113 trees, after supplying bountifully his family—an illustration on a small scale of the importance of thrifty growth and good sorts.

"The *Rambo* apple succeeds well at this place, in common with many other parts of the West, where the winters are not too severe. We examined a tree of this variety, forty years old, on the grounds of GEO. K. JENKINS, of Mt. Pleasant, the crop from which for the last eighteen years had averaged *ten barrels* annually. It was about 35 feet high, and eighteen inches in diameter. The soil was undoubtedly well suited to it, possessing depth and fertility."

Of the Columbus (Ohio,) nurseries of M. B. BATEMAN & Co., Mr. THOMAS speaks of as the first, if not the most extensive in the State:

"It is comparatively new, everything having been planted within five years, and now numbers one hundred acres actually planted with trees. The ornamental grounds, specimen orchards, &c., with which the home residence are surrounded, have made a fine progress in this short time. The Osage orange hedge, enclosing forty acres, also five years growth, we have never seen excelled. It is about seven feet high, strong and dense, about four feet thick at bottom, and tapering by straight sides to a sharp edge at top, and not, as too often seen, broad at top, which always makes a thin base sooner or later. We have seen many *Osage* hedges in this State, which were worth nothing, having been carelessly transplanted or with gaps, neglected in culture, and never properly cut back—which render success simply impossible. Apple trees are largely raised at this nursery, some three hundred thousand being propagated annually. Dwarf pears succeed well. The fire blight has not reached them this year, while so destructive in many other localities. The *Heart* cherries can be raised only as nursery trees for other regions—after two or three years of age, they fail."

At Cincinnati he found dwarf pear trees in excellent condition, and bending under loads of large and smooth specimens—some of them equal to any he had ever seen at Rochester or Boston. The *Duchesse d'Angouleme*, *Beurre Diez*, and *Vicar of Winkfield*, were very large and fair.

"The grounds of R. BUCHANAN possess great natural and much artificial beauty. The view on two opposite sides, over a broad and deep valley, in which could be discerned distant villages, richly cultivated fields, Spring Grove cemetery, and the grounds of the United States Agricultural Fair, is extensive and magnificent. He has added an artificial lake, and planted the slopes with ornamental trees, orchards and vineyards. The apple trees, of which there were many varieties were bearing heavy loads of fair fruit. The most profuse bearers were the *Willow Twig*, *Winesap*, *Yellow Bellflower*, *Ranlet's Janet*, *Belmont*, and *Romanite*. He informed us that if he were confined to three varieties, he would select for early, medium, and late, the *Red Astracian*, *Maiden's Blush*, and *White Pippin*. His *Catawba* vineyard is the best we saw in this region—the berries become more deeply colored in the neighborhood of Cincinnati than any which are ripened at the east, being often of as deep a purple as the half ripened *Isabellas* that are sometimes shown as fully matured. Pears, both dwarfs and standards, succeed well; but they will not bear the high culture and manuring which we give them in New York and New England. Standards do best when standing in grass, after attaining considerable size. Among others, a *Janinette*, some fifteen years old, was bearing a most profuse crop. Dwarf is need moderate cultivation."

"LATONA SPRINGS, KY.—A pleasant carriage ride of five miles up the picturesque and beautiful valley of the Licking led to the residence of Dr. MOSHER, at Latona Springs. It is surrounded by a natural grove of three acres, containing, as he informed us, no less than sixty-three different species of forest trees. Dr. MOSHER has given much attention to proving the different varieties of the apple. Among those which succeed well are the

Winesap, *Bullock's Pippin*, *Pryor's Red*, eastern *Vandevere*, *Flameuse*, and others. The *Benoni* proves excellent, the tree, as elsewhere, being a very fine and symmetrical grower. The *Broadwell* and *Blenheim Pippin* are excellent sweet varieties. We saw a *Northern Spy* bearing a few fine specimens. The *Jonathan* appeared to be doing well—the *Esopus Spitzenburgh* exhibited its peculiar and rich flavor, but the apples were not of very fair appearance. Hubbardston *Nonsuch* appeared to be as good as in New York. The *Yellow Bellflower*, although good, is rather declining in character. The *White Bellflower*, or *Ortley*, very fair, and showing little of the scabby appearance so prevalent in other places, and especially at the east. The *White Pippin* proves one of the most valuable sorts.

Dr. Mosher's vineyard occupies about six acres, on the side of a high ridge of land, in a most picturesque position, facing the south. The vines are chiefly the *Catawba*, are planted in the quincunx form, four feet apart, and trained to single stakes about five feet high. The cultivation is effected by hand labor, and in spring the soil is loosened up by forking. An excellent contrivance is adopted to prevent the washing down of the soil on the steep hillside and the formation of gullies. Open ditches are cut at distances of about five rods, directly down the hill, and are walled at the sides, and paved on the bottom with flat stones set across the channel on edges. These ditches are placed at the lowest places, so that the surface water flows readily into them from each side, in slight channels between the horizontal rows of vines. Although large and rapid currents flow down the hillside through these drains, no injury whatever can be done.

The *Catawba* grape is becoming considerably affected by the rot, and other sorts are looked to to supply its place. Dr. Mosher thinks the *Delaware* is going to prove one of the best substitutes. The *Venango* he thinks will be one of the best wine grapes, being entirely free from rot, hardy, and productive. It is of no value for the table, being essentially a brown Fox, but as late as the *Catawba*. The *Herbemont* ripens admirable here, and proves very delicious—about as good as the *Delaware*, and possessing all the characteristics of an exotic in quality."

Of the *Osage Orange* hedges in Ohio and Indiana, Mr. T. says :

"Many of them appear to have been carelessly planted, and remain uncultivated and uncut. They are consequently good for nothing. On the other hand, many others are well managed, in the manner we have occasionally recommended, and form dense and perfect barriers. Some are left too broad at the top, which tends to make them thin and open below. The best hedges were usually cut to a sharp ridge at top, and but little sheared on the sides near the bottom, causing the latter to grow thick inside."

GUANO FOR GRAPES.—In a prize essay on the cultivation of grapes in the Colony of Victoria, it is stated that guano had been used on grape vines with much benefit. "The first year of its application it had no visible effect on the stocks; the second it produced much wood and large berries, but no increased quantity of bunches; but in the third year it was astonishing to observe the great difference between 12 rows that had been manured with guano, and other 12 rows that had not been manured at all—the former looked healthy, dark green, had long strong branches loaded with large bunches of fruit, and far more advanced than others in their neighborhood."

FOR GROVE PLANTING.—A Wisconsin correspondent recommends sowing chestnuts for groves, or rails, in rows, 20 feet apart; the next best is Yellow Locust, plant same as Chestnut; fit the land as for corn, and plant the seed fresh.

SULPHUR FOR GRAPE MILDEW.—M. MEROIEUL, of France, states that he has found flowers of sulphur buried among the roots of grape vines to be a cure for mildew. He applied the sulphur on the 16th of August, two weeks after the mildew had attacked the vines, and it arrested the further spread of the mycelium, (fungus,) while other grapes adjoining, that were left without sulphur, were in a most pitiable condition, and he thought that "not a single grape would be saved." He thinks it would be better to put the sulphur in the soil during the winter, as he says "the sulphur would then be ready to act on the sap at the moment of its ascent in the spring." The plan is worth trying, but it seems to us somewhat doubtful whether the plants can take up the sulphur, as it is in an insoluble form.

FRUIT TREES IN MICHIGAN.

In travelling lately over portions of Kent, Ionia, and Montcalm Counties, I noticed in a good many thrifty growing apple orchards, that a considerable portion of the trees were dead and dying by a disease which seemed to be in the trunk. Before inspecting closely the trees, I judged from the amount of thrifty suckers thrown up from the roots, that it was the work of the borer, but finding none of the marks left by that insect, I was totally at fault as to the cause of such a general mortality, but I kept my eye on the orchards as I passed them, and when I had an opportunity went into them. I soon noticed that the disease was invariably upon the west side of the trunk, inclining a little to the south. The bark seemed first to crack perpendicularly, about midway of the body. This had let in the rain; that side of the bark and wood had died and turned black, and eventually the tree breaks and turns over to the east, leaving a bunch of suckers at the root. I also noticed, that those orchards which were sheltered from the west winds, by woods or hills, were not affected; and I eventually discovered that no tree that stood erect was unsound.

From these evidences, I drew my conclusions as to the cause, and the remedy. The soil in these parts is sandy or a light loam, and the roots do not readily get a firm hold; the trees have generally grown thriftily, and being pruned but little, have formed thick, bushy tops; the prevailing winds are from the west, as can readily be seen by a majority of the trees leaning to the east. In strong winds the small roots on the west side break. This is the cause of the suckers. These rob and weaken the tree, and in the next strong wind, and it may be when the trunk is frozen, the bark splits, the tree is soon over, so that the weight is beyond the center of gravity. Hence follows its destruction. Probably the plowing closer on the west side, after the tree is swayed, facilitates the process.

Being a new comer into this State, I do not know whether the trouble has long existed, or whether these has been but one season in which it has occurred, but I judge from the frequent thinness of the orchards, that the former is the fact.

The remedy that suggests itself to me is: first, to select, if you can, a sheltered location for orchards; second, cultivate the land deep, that the roots may reach far down; third, set your trees a little inclining to the west, with the heaviest branches upon that side; fourth, never set a tree, without setting a strong stake firmly on the west side, and fastening the tree to it, (this will keep the plough from coming too near,) taking care to examine and fix your stakes every season till the tree has formed a considerable top, when the danger is still greater than before, and your stakes hardly sufficient to hold it, then support it by a crotch set upon the east side, and catching against one of the main central branches: one which, should it be injured through carelessness, would not be so material. After the tree has borne a few seasons, and the limbs are somewhat bent down, I think it will take care of itself. Does any one say, this is too much trouble? Then, I say, he had better let his farm grow up with oak grubs, for without trouble he can not raise anything.

This portion of Michigan is, from its soil, but more particularly from its climate, adapted to fruit; there is no better fruit country in America. Its geography, and its thermal statistics, as well as the success of its culture show it to be so; and this, with the fact that there is between Lake Michigan and the Rocky Mountains, no more good fruit country in this latitude, affords the greatest inducements to its culture here.

A word or two more on shelter, and I have done for the present. In cleaning up a new farm in this oak country, it is wise to leave a strip on the west and north sides, of one to four rods in width, to grow up, and if the farm be more than 80 rods wide, a second strip would be advisable. Few persons are aware of the benefit of such shelter to crops and trees, as well as to themselves and their cattle; but if they will examine closely wherever such shelter exists, they cannot fail to be convinced.

MICHIGANIAN.

Muskegon, Mich., Sept., 1860.

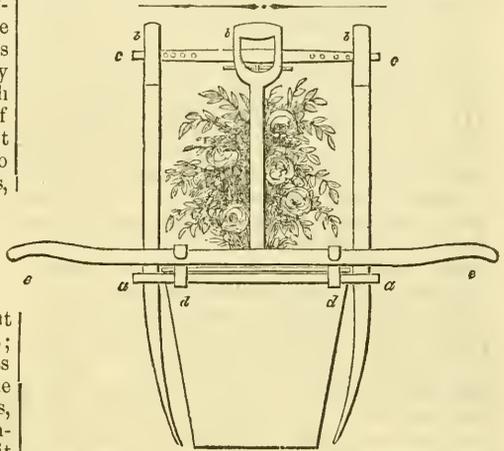
GRAFTING GRAPE VINES.

EDS. GEN. FARMER:—In answer to BEN. HADAD'S inquiries, I would say, that his want of success was attributable to various causes. In the first place, his *Isabellas* were headed down too low before grafting; in the second place, probably grafted "too late" in the season, and in the third place, (where in our opinion the difficulty principally laid) he says that he was careful to rub out the shoots, both above and below the graft, thus giving it no chance whatever of uniting, as it must have been "flooded with sap."

It is possible that Mr. HADAD'S buds (of graft,) were not all right at the time of grafting.

I will give Mr. HADAD my experience in the difficulty. On the 11th of March, 1859, on commencing to start my Grape Vines in the early vine-ry, I thought that I would like to change a *Prince Albert* for something better, and made up my mind to graft it with the *Bowood Muscat*, which was done about 6 inches from the ground—the head of the old vine (or stock,) remaining untouched. As the graft commenced to grow, the head was gradually reduced on the old vine, and before the end of the

summer my "graft" was a splendid rod, 14 feet long, having been stopped twice during that time, and measured about an inch and a quarter in diameter at just above the union. This year it has given some fine bunches of grapes, and next year it can be cropped as heavy as either of the old vines, which are above eight years old.—JOHN CARLTON, Gardener to JOSEPH HALL, Rochester.



MACHINE FOR TRANSPLANTING TREES.—The principle of MCGLASHIAN'S apparatus for transplanting trees without disturbing their roots, will be understood from the annexed figure; *a* is a rectangular iron frame; *b, b, b*, spades to be forced nearly perpendicularly into the soil; *c, c*, an extension rod so applied as to force the spades outward by the leverage at *e* acting upon the fulcrum, *a*. The result is that the earth between the blades is pressed into a wedge. The whole is then lifted by the handles, *e, e*, attached by hooks, *d*, to the frame.

THE HORRORS OF HORTICULTURE.

I've got me a nice little garden,
With a neat little palin' around,
And I growl, without axin' your pardon,
For I grumble on very good ground!

Ne'er a crack for the eye of a cricket,
Your critical eye, sir, can view,
Yet the chickens pitch over the picket,
And the little Bob Rabbits pop through!

And oft when the sweat of your labor
Is sweetened with visions of fruits,
In comes the poor shoat of your neighbor,
And up comes your crop by the "roots."

In spite of your P's and your Q's, too,
You're T's'd with the trouble you've lost,
P-eas, killed by the sticking they're used to,
And Q-numbers curled by the frost.

Bad luck to your Irish potatoes,
Not an eye whence a tear ye might draw,
Not a Murphy to whisper come "ate us,"
Responds from the depths of the straw.

Your Melons are true melon-cholics,
Not rosy and cosy and flush,
Green gourds in the place of your "Waters,"
And Pumpkins in place of your "Mush."

I've got me a nice little garden,
A neat little palin' around,
I growl, and I do n't ax your pardon,
For grumbling upon my own ground.

—Southern Cultivator.

Ladies' Department.

AGRICULTURE AND WOMEN.

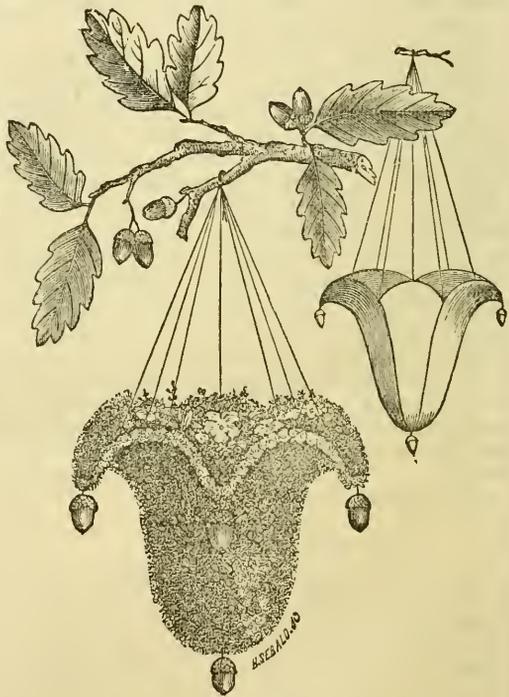
AN American gentleman who lately visited England was struck with the interest manifested by ladies, including those of the highest rank, in agriculture. One of these, the Duchess of Portland, exhibited perfect familiarity with the minutest details of farm management and work, showing her American guest over the whole of the Duke's large estate, and explaining to him the various processes and methods of cultivation. We could wish that our American ladies would adopt one of the few aristocratic tastes and habits which sit gracefully upon republican women, and which would be of equal advantage to the interests of agriculture and to their own delicate physical organizations. A great deal of cant is uttered in these days about the mission of woman, but whenever we hear an attenuated, dyspeptic female talking in this wise, we feel sure that the daily handling of a broomstick, in a peaceable manner, or the charge of a kitchen garden, would soon put her upon the track most useful for herself and for society. When Rome was young and virtuous, the kitchen garden was always placed under the care of the mother of the family. In Sparta, the women, fit to be the mothers of heroes, cultivated the soil, whilst the men were fighting the battles of their country. Indeed, from the earliest period in the annals of our race, woman has aided by her counsels, and sometimes by her labors, in bringing agriculture to a state of perfection. The laws which Osiris gave to Egypt were not as valuable to that country as those precepts in agriculture, those instructions in embankments, irrigations and drainings, which Isis, his Queen, gave to the Egyptians, and which enabled them to derive so much benefit from the deposit of the Nile. Ceres, deified by the Greeks, made her people acquainted with the use of wheat, and the mode of cultivating it. To the Empress of China we are indebted for the mulberry tree and the rearing of silk worms. Woman of late years has demonstrated her capacity of shining in many spheres once considered the peculiar province of man. Miss HERSCHEL has discovered comets; Mrs. SOMERVILLE laid open the mathematical structure of the universe; some have analyzed the chemical relations of nature in the laboratory, and others investigated the laws of social relations. With such a great amount and variety of power, may we not augur the most beneficial results to agriculture, if the women of our country, by their sympathy, encouragement and co-operation, by their studies and counsels, would prove themselves, as did the women of old, helpmeets to him whom God has ordained to cultivate the earth?—*Baltimore American.*

PLAIN CORN STARCH PUDDING.—Set upon the fire one quart of milk; take three table spoonsful of corn starch, and mix with a very little cold milk, with some sugar, and a little lemon juice. Pour it to the boiling milk, stirring briskly for two or three minutes. Pour it into a mould, and set to cool. Eat with milk or cream, and sugar.

TO WARM POTATOES.—Potatoes are nicely done in the following way: Par-boil as many potatoes as are needed; let them lie till the next morning, then cut them in small squares; add to them cream or milk, enough to make them more than moist, with a little butter, and pepper and salt. Place on the fire, cover them, and stir gently at times.

SASAAGES.—Sausages can be made by using mutton instead of pork. Chop lean and fat mutton together very fine, and season with sage, salt and pepper. Eat with mustard, and they can not be distinguished from the genuine pork sausages.

ONION PICKLE.—In November, take well dried onions, of a good shape, small and round, peel them and throw into salt and water. Let them remain there a few days; drain them, put them in a jar and pour over them spiced vinegar.



ORNAMENT FOR DRIED FLOWERS.

THE above drawings, made by an accomplished lady, represent a pasteboard hanging vase, covered with moss, and attached to an oak branch, for a parlor ornament. From the materials employed, it is better suited for dried flowers than those which require water.

The smaller basket represents the mode in which the pasteboard is united after being shaped, and the latter exhibits the same covered with moss. Every lady of the least taste can make these baskets, and ornament her boudoir, parlor, or sitting-room, with her own handiwork, which she will enjoy more than expensive purchased objects.

The oak-leaves may be represented in winter in leather.



New Advertisements this Month.

The Horse and his Diseases—John E. Potter, Philadelphia, Pa.
 Arthur's Home Magazine—T. S. Arthur & Co., Philadelphia, Pa
 Preserving Cider—Webb, Walker & Co., Utica, N. Y.
 Fancy Fowls—C. N. Bement, Poughkeepsie, N. Y.
 \$2,000 a Year—Geo. B. Bridgen, Norwich, Conn.
 Honey—L. Chase, Westery, R. I.
 Farm for Sale—Henry M. Price, Scottsville, Albemarle Co., Va.
 Farmers and Horse-dealers—C. B. Hart, Victor, N. Y.
 Sheep for Sale—16 and 18 Chambers street, New York.
 Rejected Patent Applications—J. Fraser, Rochesser, N. Y.

THE present number of the *Genesee Farmer* terminates our contract with our twenty thousand subscribers. But we stand ready and willing to renew it with one and all for another year. We must not part. Our connection, we trust, has been mutually pleasant and profitable. We have endeavored to furnish a useful and reliable paper, and we have not during the year received a single complaint, while we are constantly in the receipt of the most flattering and encouraging letters from all parts of the country. Under such circumstances we are led to believe that our old friends will not leave us, and that, with improved prospects for the farmer, we shall add many thousand new subscribers to our list.

We shall spare no efforts to improve the contents and appearance of the *Genesee Farmer* for next year. We contemplate making several improvements which will enable us to give more matter, and render the paper more attractive and useful. But when we state that the profits on a yearly subscription are *less than five cents*, it will be seen that it is not easy to add much to our expenses without loss. Indeed, if it was not for the large circulation of the *Genesee Farmer*, it could not be afforded at its present cheap rate.

We are dependent entirely on the voluntary assistance of our numerous friends to act as agents for the *Farmer*. We desire to return them our sincere thanks for their disinterested efforts on our behalf. We hope our readers will not wait to be *asked* to renew their subscriptions, but hand in their names at once, with the money, to the person getting up the club. If there is no one who is getting up a club in the town, let some one of our present readers do us the kindness to attend to it. It is not much trouble, and it shall be our endeavor to reciprocate the favor. We aim to compensate all who work for us. Our list of cash and specific premiums will be found on the last page.

THE RURAL ANNUAL AND GENESEE FARMER IN CLUBS.—We send the *Genesee Farmer* and our beautiful 25 cent book—the *Rural Annual and Horticultural Directory* for 1861—in clubs of eight, for 50 cents the two! That is to say, we send eight copies of the *Farmer*, and eight copies of the *Rural Annual* for \$4, and present an extra copy of the *RURAL ANNUAL* to the *getter-up* of the Club.

THE MARKETS.—It is now estimated that the crops in England will be one-third below an average. During the month of October, the deliveries of foreign wheat in London were only 2,153,168 bushels, while for the same period last year they were 4,119,696 bushels. "No wonder, then," says the *Mark Lane Express*, "that every shipping port where plenty of foreign grain was in store has found a numerous attendance of buyers." The price of American wheat in London, Oct. 29, was \$1.80@£2.01 per bushel. Red and white wheat are both quoted at the same price.

NEW YORK, Nov. 14.—Chicago spring wheat, \$1.17@1.21; Milwaukee club, \$1.24@1.26; white Michigan, \$1.45@1.52; red Ohio, \$1.32@1.35; white Ohio, \$1.40@1.45; red Southern, \$1.40@1.42; white do., \$1.50@1.60. Barley, 63 to 85 cents. Rye, 69@71 cents. Oats, 34@38 cents. Corn, 70@83 cents. Peas, Canadian, 75@78 cents. White beans (Southern), 80@90 cents; white beans (Northern), 90@ \$1.20. Lard, 12@12½ cents. Butter, 14@20. Cheese, 10½@11.

ROCHESTER, N. Y., Nov. 16.—White wheat, \$1.30@1.40; red do., \$1.05@1.16. Corn, 52@54 cents. Barley, 60@62 cents. Oats, 25@28. Rye 60@62½. Buckwheat, 38@40. Dressed hogs, 7 cents per lb. Beef, 3@5. Butter, 14@17.

SHOWBILLS.—We have already sent showbills to a few of our friends, whom we thought would be disposed to act as agents for the *Genesee Farmer*. We have more on hand, and shall be happy to send them by mail, prepaid, to all who will post them up, and use their influence to extend the circulation of the *Farmer*. Will those of our friends who are willing to act as agents for the *Farmer*, and who have not received our showbill, oblige us by writing for one at once?

NOT NEW SUBSCRIBERS ALONE.—Some of our friends think that in competing for our Cash Prizes only the *new names* will be counted in. This is not the case. We count in *all* that are sent and paid for, whether new or old, without any distinction whatever. The subscribers, too, need not all be at one Post Office. We send the papers to as many different Post Offices as there are members in the club, if desired.

COMMENCE AT ONCE.—The great secret of getting subscribers is to *commence early*. As soon as this number is received—the last for the year 1860—will not *each one* of our friends who are disposed to act as agents for the *Genesee Farmer*, commence taking subscriptions *at once* for next year. The January number will be out by the 10th of December at the latest. Send on the orders immediately.

CASH PRIZES, CASH PRIZES, CASH PRIZES.—It is surprising how few compete for our Cash Prizes. This is not right. We offer and pay them, and our friends should at least do us the favor to compete for them. Read over the list on the last page, and then see what you can do for us.

OUR CLUB RATES.—We send five copies of the *Genesee Farmer* for \$2, or 40 cents each; eight copies for \$3, or 37½ cents each; and every additional number at the same rate. Those who send \$2 for five copies, can have the three additional copies at any time to complete the club for \$1. Do not wait, therefore, to complete the club—send in the names as fast as they are received.

"HOW MANY SUBSCRIBERS WILL IT TAKE TO GET ONE OF THE CASH PRIZES?"—We are frequently asked this question, and in reply would say, our January premiums in 1858 were taken as follows: A club of 29 took a premium of \$5; 31, \$6; 33, \$7; 34, \$8; 36, \$9; 38, \$10; 40, \$11; 43, \$12; 56, \$13; 63, \$14; 91, \$15; 107, \$20.

The January premiums for 1859 were taken by clubs of 23, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 49, 55, 60, 70, 74, 83, 97, 107, 116.

A club of 23 took one of the April cash prizes for 1859.

This year our January cash prizes were taken by clubs of 51, 52, 53, 54, 56, 59, 60, 62, 63, 65, 70, 73, 75, 78, 82, 90, 94, 118, 120, 157, and 166. Last year our highest cash prize was \$25—we now offer \$50.

Our April cash prizes, this year, were taken by clubs of 31, 33, 34, 35, 38, 43, 44, 46, 47, 48, 50, 51, 56, 57, 58, 60, 68, 71, 74, 104, and 124.

Our cash prizes for the half volume this year were taken by clubs of 18, 20, 22, 28, 31, 32, 34, 38, 49, 50, 56, and 71.

The names of the parties who take the prizes, with their address, are published. There is no deception about it. We pay the prizes in full, in *cash*, and feel certain that no young man who has a little leisure, and will take the trouble to speak to his neighbors and get them to subscribe, can fail of obtaining one of the largest of these cash prizes. We do not offer books, or machines, implements, seeds, pianos, &c., &c., but *cash*, that all may know exactly what they are working for. Our list of cash prizes for clubs sent in before the 15th of January next, will be found on the last page. We will send specimen copies and show-bills free to all who are willing to form clubs.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1861.—The Sixth Annual volume of the *Rural Annual and Horticultural Directory* is now ready. To those not acquainted with the previous numbers, we would say, that the *Rural Annual* is a handsome book of 120 pages, published at the office of the *Genesee Farmer*, and designed to furnish a large amount of valuable and interesting information in a cheap and permanent form. A new number is prepared each year, containing entirely new matter. Among the contents of the present number may be named treatises on the Farmer's Kitchen Garden, Shade and Ornamental Trees, management of Window Plants, cultivation of Immortelles or Everlasting Flowers, Ornamental Hedges, Sulphur for Mildew on the Grape, designs for Farm Houses, Cottages, Suburban Residence, Barns, &c.; Ornamental Water Fountains, Construction of Gates, Calendar of Operations, Cultivation of Pears, with many other articles of interest and practical value to the Farmer, the Fruit Grower, and the Horticulturist.

It is illustrated with 80 beautiful wood engravings.

The *Rural Annual and Horticultural Directory* for 1861, will be sent, prepaid by mail, on the receipt of 25 cents in postage stamps. Address JOSEPH HARRIS, Publisher of the *Genesee Farmer*, Rochester, N. Y.

ARTHUR'S HOME MAGAZINE.—The prospectus of this well-known and excellent Magazine, for 1861, will be found in our advertising columns. Those not acquainted with the work should write for a specimen copy—which the publishers offer to send free to all who wish to subscribe.

AGRICULTURAL LECTURES AT YALE COLLEGE.—The Second Agricultural Lecture Course, under the auspices of Yale College, will be held at New Haven, Ct., next February. It will be held in the lecture room of the magnificent new building of the Philosophical Department, and will occupy the whole month. Among the lecturers are Professors J. A. PORTER, S. W. JOHNSON, H. SILLMAN, and W. H. BREWER; Drs. FITCH, COMSTOCK, GRANT and GULLIVER; Messrs. M. P. WILDER, P. BARRY, R. G. PARDEE, L. F. ALLEN, H. F. FRENCH, J. S. GOULD, LEVI BARTLETT, L. H. TUCKER, C. M. CLAY, C. L. FLINT, SANFORD HOWARD, M. C. WELD, D. G. MITCHELL, AMBROSE STEVENS, and JOSEPH HARRIS. The lectures will be fully illustrated with diagrams, models, life-size portraits of animals, &c.

Just as we go to press, a telegram from Prof. PORTER announces the addition to the above list of lecturers of five new names of gentlemen eminent in their respective departments; also, that the subject of Horse Breaking and Training will be illustrated by living animals. Full particulars can be obtained by addressing Prof. JOHN A. PORTER, New Haven, Conn.

Notes from Maine.

THE WEATHER.—The month of October has been more pleasant than September, giving us many warm and beautiful days for the husbandman to finish his harvesting and prepare for winter, which with us, may almost be said, to continue for six months. The frosts in September were more injurious than was at first supposed; much fruit and vegetables were frozen, and frost-bitten so badly as to cause early decay in many orchards situated in sheltered positions, and on low grounds, near water, the fruit was so much injured as to be suitable for nothing but cider. October has been a warm month—the mean being 45.9°; extremes, 63° and 29°. One of the heaviest thunder storms for the year occurred on the 26th, at 4 and 5 P. M., and a heavy shock of an earthquake was felt on the 17th, at 6 A. M. At 2 P. M., of 30th, the thermometer indicated 65°. November began unusually warm, at 2½ P. M., of 1st the mercury marked 69°.

HUNGARIAN GRASS.—An experiment with this grass, upon a small scale this season, resulted as follows:—Nearly a quart of seed—the products of two heads in 1859—was sown the 22nd of May, upon a piece of ground, containing eight square rods, or one-twentieth of an acre, and harvested the 18th September, producing 300 lbs. of fodder or hay, from which was threshed 60 quarts of seed, weighing 45 lbs. per bushel, or at the rate of three tons of hay per acre, or about 40 bushels of seed, and two tons of fodder per acre. The ground upon which it was sown was in potatoes the previous year, and the manure applied this year consisted of but one bushel of plaster or gypsum. Of its merits or demerits I have nothing at present to say; I merely give the facts in the case, leaving each one to draw his conclusions.

PREPARING FOR WINTER.—The present warm weather affords a good opportunity to put everything in order for the coming cold winter. Tender shrubs and plants should be carefully attended to, and among the different articles used for this purpose, that which finds the most favor with us, are spruce and fir boughs—hundreds of loads are annually sold in this city for boughing gardens and around houses; and further back, where evergreens abound, shrubs from six to twelve feet in height are cut and disposed around the buildings, and in the gardens and yards; besides the shelter they give, a little taste in their disposal will cause a pleasing effect, destined in some degree to cheat winter of its dreariness.

STOCK.—Stock still continues at a low figure consequent upon the high price of hay, which is now selling (loose) in this market at \$16 per ton. Good cows are being sold from \$10 to \$17 apiece, and all young stock still lower; working oxen command a fair price; beef brings from \$3 to \$5 per hundred. It is a question whether farmers will profit more by sacrificing their stock, so as to dispose of hay, or keep it until spring, when it will undoubtedly command a high price, beside having their money.—Geo. E. BRACKETT, *Belfast, Me., Nov. 1860.*

Inquiries and Answers.

WHAT AMOUNT OF FOOD IS REQUIRED BY A HARD WORKING MAN?—(M. D.) This depends on the quality of the food, the nature of the climate, and on such a variety of circumstances that it is impossible to give a satisfactory answer. The average allowance to British sailors in active service, is 302 ounces of *solid food* per week, and a pint and a half of rum. Dr. PERCY mentions the diet of a prize fighter during a course of rigorous training. He eat 1 lb. of mutton at each meal, three times a day; at dinner he eat in addition 2 ounces of bread, and at each meal drank half a pint of ale. He walked regularly 17 miles per day. The total *solid food* contained in this diet is 350 ounces weekly. We suppose about 3 lbs. of solid food per day in temperate climates may be taken as the average consumed by hard-working men. But in the Arctic and Antarctic regions, the amount of food that can be disposed of is truly immense. Thus Ross tells us, that the Esquimaux eat 10 lbs. of meat at a meal, accompanied by the same quantity of oil. PARRY weighed the food of an Esquimaux lad, scarcely fully grown, and found that he consumed, during the day—sea-horse flesh, 8½ lbs.; bread, 1½ lbs.; rich gravy soup, 1¼ pint; raw spirits, 3 glasses; strong grog, 1 tumbler; water, 1 gallon 1 pint. COCHRANE describes a Yakut or Tongouse as eating 40 lbs. of flesh in a day, saying that a good calf, weighing 200 lbs., "may serve four or five good Yakuts for a single meal;" and that he has seen three of them "consume a reindeer at one meal." Admiral SARITCHEFF knew a Yakut who consumed "the hind quarters of a large ox, 20 lbs. of fat, and a proportionate quantity of melted butter for his drink," in a day. The Admiral tried an experiment with him, by given him "a thick porridge of rice, boiled down with 3 lbs. of butter, weighing together 23 lbs.; and, although the glutton had already breakfasted, yet did he sit down to it with great eagerness, and consumed the whole without stirring from the spot; and, except that his stomach betrayed more than an ordinary fullness, he showed no signs of inconvenience or injury." BARROW states, that three Hotentots eat one sheep in a day, and that ten of them eat an ox all but the hind legs in three days. The Samoyedes are stated to consume 8 or 10 lbs. of meat at a meal, flavored with a dozen tallow candles, and washed down with a quart or two of train oil. Extravagant as these statements appear to be, most of them have been verified by numerous observations.

"ARE DURHAM COWS GOOD MILKERS?"—(J. M., *Elgin Co., C. W.*) There are some strains of Durhams, or, as they are more generally called, Shorthorns, that are good milkers, but as a general rule, the Shorthorns have a greater tendency to produce fat than milk. Mr. HARLEY, author of the "*Harlein Dairy System*," published in 1829, tried the Shorthorns, but found them far less profitable than the Ayrshires. They gave as much milk as the Ayrshires, but consumed considerably more food.

BEES.—Last week I took a bee-tree, hauled a piece of it home and set it up, and they appear to be doing well. How long will they live or work if the queen is killed, or how can I tell if they are all right? Can you tell me where I can get a good work on bee-keeping, and the price?—J. B. D., *Marion, Pa.*

We can send you "Langstroff on the Bee." Price \$1.25.

GRAIN AMONG FRUIT TREES.—I observe that in your "Rural Annual and Horticultural Directory," you say "To sow oats, wheat or barley, in a young orchard is the height of folly." No reason is given for this proposition. Doubtless the subject is discussed in dissertations on the orchard, which I have not seen—not having given the subject much attention heretofore. Might I therefore ask you to explain the reason why these crops are hurtful to a young orchard? Does the prohibition also exclude rye? I had intended sowing a crop of rye on a piece of ground as a preparation to plant fruit trees this fall and winter. I intended to plant the trees after the rye was sown, and let both grow together.

My past experience satisfies me that young orchard trees do but little good unless cultivated in some way, and I had accordingly made up my mind to sow oats every spring in my orchard, and hoe immediately around the roots of the trees, and feed the crops to my hogs on the ground. But the opinion expressed in your "Rural Annual" discourages this idea.—J. F. D.

Will some of our correspondents give us an article on the above subject? We have not space this month to do it justice. Oats, wheat, barley or rye, draw much plant-food and moisture from the soil and check the growth of the trees. Hoed crops are less injurious, as the soil can be kept well stirred, and will not be so dry as when the plants cover the whole ground. Hoeing the ground round the trees, as proposed, will answer the purpose, *provided it is hoed for a sufficient space round the young trees*—say six or eight feet in diameter. This will answer for a year or two, but as the trees grow the roots will extend much farther, and in the case of peaches and dwarf pears, especially, it is best to let them occupy the whole ground.

QUINCES ON THORNS.—I have heard that the quince does well when grafted on the common white thorn. Can you or your correspondents give us some information on the subject?—W. A., *Conn.*

We have had no experience on this point, and should be glad to hear from those who have. Some years since, W. BACON, of Richmond, Mass., gave an account in the *Horticulturist*, of some quinces grafted on the thorn, which succeeded admirably.

LIME FOR FRUIT TREES.—In the October number of the *Genesee Farmer*, a correspondent recommends lime as the best manure for fruit trees. Now, I wish to know why lime is the best manure for an orchard? and if best, how, when, and in what quantities should it be applied to a given extent of land? Can land be made too rich with stable or barn yard manure for any varieties of plum or pear, so as to prevent them bearing fruit?—J. K., *Faughan, C. W.*

PLANTING PEAS IN THE FALL.—In reply to your inquiry in the last number of the *Genesee Farmer*, in regard to planting peas in the fall, I would state that I have practiced this for twenty years past, and had my peas in market from the 5th to the 10th of June. I plant in November, and from that until March, as the frost will permit. Last year I planted the 16th of February, and marketed them the 6th of June. I have not planted yet as the weather is very warm.—Z. KNAPP, *Pittston, Luzerne Co., Pa.*

MUCK.—Will some of your correspondents tell me the easiest and best way to put on muck? I have a level field (but not wet), which I planted with corn last spring, and find it has too much lime on it. It is clay ground. I would like to draw the muck out of a mill-pond and spread it on this fall without lime, and harrow it well. That is the easiest way for me. Or, would it be best to mix lime with it this fall, and let it lie until next spring before it is put on; or is it useless to put such stuff on the land? It is a kind of black mud, leaves, small twigs, etc., settled in the backwater, and is dry at low water. Any information will be thankfully received from an experienced applier of muck.—A. B. W., *New Village, N. J.*

Read What is Said of the Genesee Farmer.

I AM extremely pleased with the *Farmer*.—R. C. A., *Renfrew, C. W.*

THE *Genesee Farmer* still keeps up its high reputation.—*Civilian, Independence, Iowa.*

THE *Genesee Farmer* is decidedly the cheapest journal we know of.—*Excelsior, Hightstown, N. J.*

THE *Genesee Farmer* is an excellent Monthly, filled with sound science and honest doctrine.—*Homestead.*

I HAVE read the *Farmer* so long, I do not like to do without its friendly visits.—D. S., *McGillivray, C. W.*

It is a work which should find its way into every farmhouse in the country.—*Democrat, Lansingburgh, N. Y.*

THE *Genesee Farmer* is one of the best and most useful agricultural journals in this country.—*Saratoga Farmer.*

THE *Genesee Farmer* is an excellent work. The Farm, Dairy, Orchard, Garden, &c., are amply treated.—*Standard, Durham, C. W.*

THOSE wishing a reliable Agricultural paper cannot do better than to subscribe for the *Genesee Farmer*.—*Journal, Wabashaw, Minn.*

THE *Genesee Farmer* is acknowledged by everybody to be the most valuable monthly of its class in the country. *N. H. Journal of Agriculture, Nov. 14, 1861.*

WE consider the *Genesee Farmer* the cheapest publication of its character to be found in the country, and heartily recommend it to our readers.—*Star, Wrightsville, Pa.*

THERE are many useful and practical lessons in the *Farmer*, which will, upon perusal, recommend it. I do not like to lend my own, as I wish to keep all for reference.—H. B. N., *Westport, N. Y.*

MR. H., I would express my satisfaction with the *Farmer*. While it seems to be friendly to novelties, it also preserves, I think, a fair conservative character in horticultural matters.—A. B., *Neida, N. Y.*

WE know of no Agricultural Journal that has been so long and favorably known as the *Genesee Farmer*. Its information on agricultural matter is always reliable, and no farmer can take it without being benefitted.—*Herald, Carlisle, Pa.*

THE interesting *Genesee Farmer* comes freighted with a full variety of able and valuable articles, which will be treasured by our agricultural readers. Its contributors bestow much attention upon their subjects. This monthly periodical, always good, has improved still further lately.—*Pennsylvanian, York, Pa.*

THOSE who do not yet take the *Genesee Farmer*, should borrow one from their neighbors who do, and afterwards, we feel certain, they will make up their minds to procure it for themselves. The suggestions in one number will often save the farmer fifty times the price of the work for a whole year.—*Chronicle, Ingersoll, C. W.*

It is almost impossible, without enumerating its contents, to give those who have not the privilege of reading this agricultural paper, an idea of the vast amount of information on rural subjects to be found in its columns. There are articles upon every department of agriculture, gardening, &c., by competent writers.—*Tribune, Cayuga, C. W.*

WE never fail to find in its columns every branch of Agriculture, introduced and treated in the most intelligent and interesting manner,—and while we are interested in its details, we are no less so, in the judiciousness of the subjects this incomparable Monthly brings to our notice. Every farmer ought to subscribe for it.—*Gazette, Prattsburgh, Md.*

THIS ably-conducted Agricultural Journal always comes to us brimful of practical information on all subjects of interest to the farmer and fruit-grower. One of the oldest, it is also one of the most useful and reliable of its class. The price of it is so low, (only fifty cents a year,) that those taking other journals of the same character can afford this also. No farmer, anywhere, should be without it. Try it for a year, and you will never regret the trial.—*Puget Sound Herald, Steilacoom, Washington Territory.*

Books, Pamphlets, &c., Received

CHAMBERS' ENCYCLOPEDIA: A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Part 21. New York: D. APPLETON & Co. Price 15 cents per number.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS for 1861. With one hundred and forty engravings. Albany: LUTHER TUCKER & SON. Price 25 cents.

WESTMINSTER REVIEW. American edition. Vol. 51, No. 2—for October. New York: L. SCOTT & Co. Price \$3.

EDINBURGH REVIEW. American Edition. October. New York: LEONARD, SCOTT & Co. Price \$3 a year.

The following books are for sale by STEELE, AVERY, & Co., of this city.

A COURSE OF SIX LECTURES, on the Various Forces of Matter, and their Relations to each other. By MICHAEL FARADAY, D. C. L., F. R. S.; Edited by WILLIAM CROOKES, F. C. S. With numerous illustrations. New York: HARPER & Bros. Price 75 cents.

LIFE AND CORRESPONDENCE OF JOHN A. QUITMAN, Major-General U. S. A., and Governor of the State of Mississippi. By J. F. H. CLAIBORNE. In two volumes. New York: HARPER & Bros. Price \$3.00.

SOCIAL WELFARE AND HUMAN PROGRESS. Being Academic and Occasional Discourses and other Pieces by C. S. HENRY, D. D. New York: D. APPLETON & Co. Price \$1.

MY NOVEL; or, Varieties in English Life. By PISISTRATES CAXTON. Library Edition in two volumes. New York: HARPER & Bros. Price \$2.50.

EVAN HARRINGTON; or, He Would be a Gentleman. By GEO. MERIDITH. New York: HARPER & Bros. Price \$1.

EDUCATION; Intellectual, Moral, and Physical. By HERBERT SPENCER. New York: HARPER & Bros. Price \$1.

WHEAT AND TARES. New York: HARPER & Bros. Price 75 cents.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

ADVERTISEMENT.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

HOW TO OBTAIN PATENTS when Rejected. A Circular of information on this subject sent on application to Dec.—1t J. FRASER, Rochester, N. Y.

SHEEP FOR SALE.

FOR SALE at the Lorillard Sheep Farm at Fordham, Westchester Co., 12 miles from the City of New York, on the N.Y. & Harlem Railroad, 20 SOUTH DOWN RAMS, yearlings; also, 20 SHROPSHIRE DOWN RAMS, yearlings—the production of the finest imported Rams, having taken the first premiums at the New York State Fairs in 1859 and 1860. Inquire at 16 and 18 Chambers St., New York. Dec.—6m

FARMERS AND HORSE DEALERS.

SIX VALUABLE RECIPES for Thirty Cents—Namely: A Cure for the Heaves; A cure for Fistula, Poll Evil, and all sores where pipes are formed—this is a safe and infallible remedy; To remove a Ringbone in 12 to 48 hours, without injury to the joint; To remove Wind Galls and Blood Spavins—this will effectually cure the worst of cases; To make a valuable Liniment for man or beast; To make the celebrated American Water-proof Polish for boots and shoes, harness, &c. This Polish is not excelled by any in use, being perfectly water-proof, and requires no brushing, as a beautiful gloss appears immediately after application.

Inclose thirty cents, and address C. B. HART, Dec.—1t* Victor, Ontario Co., N. Y.

TO THE PUBLIC.

DO YOU WISH TO READ an entertaining, instructive, religious and secular family newspaper, sound, conservative and safe,

THE LARGEST IN THE WORLD;

giving full, impartial and reliable summary of all the news in all religious denominations, from all political parties, from all countries in the world; belonging to no sect in the Church, and to no party in the State, but opposed to every *ism* that disturbs the peace of the community and the harmony of the country; a newspaper having distinct departments devoted to Agriculture, Commerce, and General Literature, with Tales, Poetry, Science and Art, furnishing pleasant and instructive reading for children and parents, in all the realms of matter and mind. You can have it for one year by sending your name and address, with \$2.50, to the NEW YORK OBSERVER Office.

Commission to Agents.

Any person who will obtain five new subscribers, with advance payment, may retain FIVE DOLLARS as his commission, and for twenty new subscribers, may retain Twenty-five Dollars.

SIDNEY E. MORSE, JR. & CO.

EDITORS AND PROPRIETORS,

87 Park Row, New York.

Nov.—21

ATTENTION, NURSERYMEN!

A Small Farm in Virginia for Sale.

SUITABLE for a Nursery, in a wealthy region. Contains 24 acres of land; near 100 bearing Fruit Trees, and some 500 young trees of every variety of Fruit; good springs of water; mostly inclosed with plank and young Osage Orange fence. The house is new, well furnished—six rooms. Yard well inclosed, shaded with Oaks and adorned with shrubbery. Stable new, with well inclosed lot. Garden superior. Is only ½ mile from Scottsville, and ½ mile from James River Canal. Terms, \$2,400—\$8.00 cash, \$800 in 12 months, \$500 in 2 years, with interest from date. It is the best location for a Nurseryman in the Union. More land can be bought adjoining, in timber, at \$25 per acre, cash.

Address HENRY M. PRICE,
Scottsville, Albemarle Co., Va.

Dec.—4

BEST SIX NEW GRAPES.—Delaware, Diana, Concord, Rebeeca, Hartford Prolific and Union Village—good one year old roots, warranted genuine, will be furnished, packed in moss for Express, for \$5 the set; or for \$6 we will send the foregoing and York Madeira (same as Marion Port and Hyde's Eliza) Clinton, Catawba and Isabella, making 10 varieties.

Send for Descriptive Catalogue of the Columbus Nursery.
M. B. BATEHAM & CO., Columbus, Ohio

Nov.—21

HONEY! HONEY!! HONEY!!!

MANUFACTURED at a cost of only 8 cents per pound; being at a very simple and very easily prepared. It is a delicious article for table use, tons of it being sold throughout the country for *pure honey*. Recipe sent to a part of the country on receipt of 20 cents in silver or stamps. Every family should have it. Enough may be saved on 5 lbs. to pay for the recipe.

Address L. CHASE, Box 193, Westerly, R. I.

Dec.—31*

AMERICAN ARBOR VITÆ.

BALSAM Fir, Hemlock, Norway and American Spruce, Pines, Deciduous Ornamental Trees, Gooseberries, &c., in quantities to suit, at lowest cash rates. Send for a Catalogue.

S. T. KELSEY & CO., GREAT VALLEY NURSERIES,
Great Valley, Cattaraugus Co., N. Y.

Nov.—5

\$2,000 A YEAR—Made by any one cutting Stencil Work. Large and small steel dies, whole letters, two alphabets, and border tools, with chisels and gouges for large work, with stock sufficient to retail for \$150. Cheapest and best. Samples sent free. Address GEO. B. BRIGDEN,
Norwich, Conn.

Dec.—11

FANCY FOWLS.—We can spare a few pairs of Black, Golden, and Silver Spangled Hamburg fowls; also, the African, Golden and Silver Spangled Bantams, Black Spanish and Spangled Chittagongs, and seven varieties FancY Pigeons.

C. N. BEMENT, Poughkeepsie, N. Y.

Dec.—21

GEORGE MILLER—Importer and Breeder of Short-horn and Galloway Cattle, Leicester and Cotswold Sheep, Markham P. O., Co. York, Canada West. N. B. A few choice Dorking Fowls, bred from imported stock, can be had in autumn. Price \$5 per pair. July—1y

SULPHITE OF LIME—For Preserving Cider, with full directions for use. Price, 50 cents per bottle of ten ounces—enough for forty gallons of cider. Sent by Express anywhere.

WEBB, WALKER & CO., Utica, N. Y.

Dec.—11

SHORN-HORNS—Several young Bulls and Heifers. SUFFOLK SWINE—all ages. For sale by T. L. HARISON,
Morley, St. Lawrence Co., N. Y.

July—61*

100,000 FOR 1861.

ELEGANT PREMIUMS TO GETTERS-UP OF CLUBS

ARTHUR'S HOME MAGAZINE,

For 1861! Vols. XVII. and XVIII.

EDITED BY

T. S. ARTHUR AND VIRGINIA F. TOWNSEND.

Devoted to Social Literature, Art, Morals, Health and Domestic Happiness.

SO well known is the HOME MAGAZINE in all parts of the United States and the Canadas, that we are scarcely required in the announcement for 1861 to speak of its peculiar characteristics. All that its name implies, the editors have striven and will still strive to make it.

Our purpose has ever been to give a magazine that should unite the attractions of choice and elegant literature with high moral aims, and teach useful lessons to men, women and children, in all degrees of life. Still more eminently will this feature of excellence, interest and usefulness in the reading matter of the Home Magazine be regarded in the future volumes.

In the January number will be commenced a new story, entitled—

NOTHING BUT MONEY.

By T. S. ARTHUR.

Miss TOWNSEND will continue to furnish those charming stories and exquisite picture-sketches which have been the delight of so many readers. While

WRITERS OF THE FIRST TALENT AND REPUTATION

will give their best efforts to our pages. Besides its carefully edited LITERARY DEPARTMENT, a portion of the Magazine is devoted to subjects of special interest to the Home circle. It has a HEALTH DEPARTMENT, A MOTHER'S DEPARTMENT, A TOILET AND WORK-TABLE DEPARTMENT, A BOY'S AND GIRL'S TREASURY, A HOUSEKEEPER'S REPOSITORY, A REVIEW DEPARTMENT, etc. etc.

An Elegant Steel Engraving

is given in each number of the Magazine, besides from six to eight pages of dress, mantle and needle-work patterns, and other choice illustrations.

PREMIUMS.

We offer two elegant and attractive steel engravings, as premiums to all who make up Clubs. One of them is called "SEVENTY-SIX," and is 16 inches by 23; the other, "HE KNEW THE SCRIPTURES FROM HIS YOUTH," 14 inches by 24. They are first class engravings as to execution, and will make handsome ornaments for any parlor. The publisher's price for these plates is \$1.50 each.

TERMS, IN ADVANCE.

1 copy (and one of the premium plates),.....	\$2 00
2 copies (and one of the premium plates to get-ter-up of Club),.....	3 00
3 copies (and one of the premium plates to get-ter-up of Club),.....	4 00
4 copies (and one of the premium plates to get-ter-up of Club),.....	5 00
8 copies (and an extra copy of Magazine, and one premium plate to get-ter-up of Club),.....	10 00
12 copies (and an extra copy of Magazine, and both premium plates to get-ter-up of Club),.....	15 00
17 copies (and an extra copy of Magazine, and both premium plates to get-ter-up of Club),.....	20 00

Three red stamps must be sent, in every case, to pay the cost of mailing each premium.

Specimen copies sent to all who wish to subscribe, or make up club.

CLUBBING.

Home Magazine, and Godey, Harper, or Knickerbocker, \$3.50 per annum. Home Magazine and Saturday Evening Post, \$3. Address, T. S. ARTHUR & CO., 323 WALNUT Street, PHILADELPHIA, PA. Dec.—11

\$100 PER MONTH—Can be made by any one with Stencil Tools. I sell the cheapest and best. Be sure and send for my circular, which fully explains the business. Address Oct., 1860.—51* JOHN MILLIKEN, Lawrence, Mass.

MOONEY CAN BE MADE—In selling our Agricultural and Miscellaneous Books. For terms of agency apply to SAXTON & BARKER,
25 Park Row, New York.

Nov.—21

PITTSBURGH WATER CURE—A first-class CURE, in its sixth year. Room for over 100 patients. Send for circular to Dr. FREASE, Pittsburgh, Pa. Oct.—41*

Great Work on the Horse.

THE HORSE AND HIS DISEASES:

BY ROBERT JENNINGS, V. S.,

PROFESSOR OF PATHOLOGY AND OPERATIVE SURGERY IN THE
VETERINARY COLLEGE OF PHILADELPHIA, ETC., ETC.

WILL TELL YOU Of the Origin, History and distinctive traits of the various breeds of European, Asiatic, African and American Horses, with the physical formation and peculiarities of the animal, and how to ascertain his age by the number and condition of his teeth: illustrated with numerous explanatory engravings.

THE HORSE AND HIS DISEASES

WILL TELL YOU Of Breeding, Breaking, Stabling, Feeding, Grooming, Shoeing, and the general management of the horse, with the best modes of administering in dieties; also, how to treat Biting, Kicking, Rearing, Shying, Stumbling, Crib-biting, Restlessness, and other vices to which he is subject; with numerous explanatory engravings.

THE HORSE AND HIS DISEASES

WILL TELL YOU Of the causes, symptoms, and treatment of Strangles, Sore Throat, Distemper, Cough, Influenza, Bronchitis, Pneumonia, Pleurisy, Broken Wind, Chronic Cough, Roaring and Whistling, Lamppas, Sore Mouth and Ulcers, and Decayed Teeth, with other diseases of the Mouth and Respiratory Organs.

THE HORSE AND HIS DISEASES

WILL TELL YOU Of the causes, symptoms, and treatment of Worms, Bots, Colic, Strangulation, Stony Concretions, Ruptures, Palsy, Diarrhoea, Jaundice, Hepatirrhoea, Bloody Urine, Stones in the Kidneys and Bladder, Inflammation, and other diseases of the Stomach, Bowels, Liver and Urinary Organs.

THE HORSE AND HIS DISEASES

WILL TELL YOU Of the causes, symptoms, and treatment of Bone, Blood and Bog, Spavin, Ringbone, Sweetie, Strains, Broken Knees, Wind Galls, Founder, Sole Bruise and Gravel, Cracked Hoofs, Scratches, Canker, Thrush, and Corns; also, of Megrims, Vertigo, Epilepsy, Staggers, and other diseases of the Feet, Legs and head.

THE HORSE AND HIS DISEASES

WILL TELL YOU Of the causes, symptoms, and treatment of Fistula, Poll Evil, Glanders, Farcy, Scarlet Fever, Mange, Surfeit, Locked Jaw, Rheumatism, Cramp, Gall, Diseases of the Eye and Heart, &c., &c., and how to manage: Castration, Bleeding, Trephining, Boweling, Firing, Hernia, Amputation, Tapping, and other surgical operations.

THE HORSE AND HIS DISEASES

WILL TELL YOU Of Rarey's Method of Taming Horses; how to Approach, Halt, or Stable a Colt; how to accustom a horse to strange sounds and sights, and how to Bit, Saddle, Ride, and Break him to Harness; also, the form and law of WARRANTY, The whole being the result of more than fifteen years careful study of the habits, peculiarities, wants and weaknesses of this noble and useful animal.

The book contains 384 pages, appropriately illustrated by nearly One Hundred Engravings. It is printed in a clear and open type, and will be furnished to any address, postage paid, on receipt of price, half bound, \$1.00, or, in cloth, extra, \$1.25.

\$1000 A YEAR Can be made by enterprising men everywhere, in selling the above and other popular works of ours. Our inducements to all such are extremely liberal.

For single copies of the Book, or for terms to agents with other information, apply to or address

JOHN E. POTTER, Publisher,

Dec., 1860.—3t No. 617 Sansom Street, Philadelphia, Pa.

GROVER & BAKER'S

NOISELESS

**FAMILY SEWING MACHINE.**

THE undersigned, CLERGYMEN of various denominations, having purchased and used in our families "GROVER & BAKER'S CELEBRATED FAMILY SEWING MACHINE," take pleasure in recommending it as an instrument fully combining the essentials of a good machine. Its beautiful simplicity, ease of management, and the strength and elasticity of its sitch, unite to render it a machine unsurpassed by any in the market, and one which we feel confident will give satisfaction to all who may purchase and use it.

- | | |
|--|-----------------------------------|
| Rev. W. P. STRICKLAND, | } New York. |
| Rev. N. VANSANT, | |
| Rev. R. B. YARD, | |
| Rev. E. P. RODGERS, D.D., | } Albany, N. Y. |
| Rev. W. B. SPRAGUE, DD., | |
| Rev. J. N. CAMPBELL, DD., | |
| Rev. CHARLES ANDERSON, | } Auburn, N. Y. |
| Rev. CHARLES HAWLEY, | |
| Rev. DANIEL H. TEMPLE, | |
| Rev. T. M. HOPKINS, | } Baltimore, Md. |
| Rev. WILLIAM HOSMER, | |
| Rev. O. H. TIFFANY, D.D., | |
| Rev. C. J. BOWEN, | } Baltimore, Md. |
| Rev. JONA. CROSS, | |
| Rev. JOHN MC'RON, D.D., | |
| Rev. W. T. D. CLEMM, | } Govanstown, Md. |
| Rev. R. C. GALBRAITH, | |
| Rev. T. DAUGHERTY, Waynesboro, Pa. | |
| Rev. THOS. E. LOCKE, Westmoreland Co., Va. | } Norfolk, Pa. |
| Rev. W. A. CROCKER, | |
| Rev. J. F. LANNEAN, Salem, Va. | |
| Rev. CHAS. HANKEL, D.D., Charleston, S. C. | } Selma, Ala. |
| Rev. A. A. PORTER, | |
| Rev. JOSEPH J. TWISE, Speedwell, S. C. | |
| Rev. B. B. ROSS, Mobile, Ala. | } Enfield, N. C. |
| Rev. J. L. MICHAUX, | |
| Rev. A. C. HARRIS, Henderson, N. C. | |
| Rev. HENRY A. RILEY, Montrose, Pa. | } Geneva, N. Y. |
| Prof. W. D. WILSON, D.D., | |
| Rev. ELBERT SLINGERLAND, Scotia, N. Y. | |
| Prof. JOHN FOSTER, | } Schenectady, N. Y. |
| Rev. FRANK IS G. GRATZ, | |
| Rev. J. TURNBULL BACKUS, D.D., | |
| Rev. P. C. PRUGH, Xenia, O. | } Cincinnati, O. |
| Rev. B. W. CHIDLAW, A.M., | |
| Rev. E. GRAND GIRARD, Ripley, O. | |
| Rev. A. BLAKE, | } Gambier, O. |
| Rev. E. C. BENSON, A.M., | |
| Rev. J. J. M'ELBENNY, D.D., | |
| Rev. F. CHESTER, Ironton, O. | } Cambridge City, Ind. |
| Rev. E. F. HASTY, | |
| Rev. J. C. ARMSTRONG, Sabine, Mich. | |
| Rev. ARTHUR SWAZEY, Galena, Ill. | } Cambridge City, Ind. |
| Rev. ENSTEIN MORROUGH, | |
| Rev. RICHARD WHITE, Milton, Ind. | |
| Rev. CALVIN VALE, Martinsburgh, N. Y. | } Norfolk, Conn. |
| Rev. JOSEPH ELDRIDGE, | |
| Rev. JOHN JENNINGS, | |
| Rev. H. L. WAYLAND, | } Worcester, Mass. |
| Rev. WILLIAM PHIPPS, | |
| Rev. OSMOND C BAKER, Bishop | |
| Rev. THOS. RATIAY, | } of M. E. Church, Concord, N. E. |
| Rev. G. N. JUDD, Montgomery, N. Y. | |
| Rev. A. M. STOWE, Canandaigua, N. Y. | |
| Rev. WILLIAM LONG, Cliff Mine, Mich. | } 495 Broadway, New York. |

Offices of Exhibition and Sale:—495 Broadway, New York. 1 Summer Street, Boston. 730 Chestnut Street, Philadelphia. 18 Baltimore Street, Baltimore. 58 West Fourth Street, Cincinnati. 124 North Fourth Street, St. Louis. 115 Lake Street, Chicago. 1 Newhall House, Milwaukee. 5 Merrill Block, Detroit. 171 Superior Street, Cleveland.

SEND FOR A CIRCULAR.

THE GROVER & BAKER
NOISELESS

Family Sewing Machine

It is rapidly superseding all others for family use. The DOUBLE LOCK-STITCH formed by this Machine is found to be the only one which survives the wash-tub on bias seams, and therefore the only one permanently valuable for Family Sewing.

IT IS THE BEST IN THE WORLD

For families to use, who desire a stitch unrivalled for BEAUTY, ELASTICITY, and STRENGTH. This machine sews equally well on all fabrics—muslin, cotton, linen, woolen cloth, etc., from the finest SWISS MUSLIN up to the HEAVIEST BEAVER CLOTH or LEATHER. It finishes its own work, which is more durable than any fabric, runs at a quicker rate of speed than any other, is very simple in its construction, easily understood, and with proper management NEVER GETS OUT OF ORDER.

OFFICES.

495 Broadway, New York; 18 Summer Street, Boston; 739 Chestnut Street, Philadelphia; 151 Baltimore Street, Baltimore; 124 North Fourth Street, St. Louis; 58 West Fourth Street, Cincinnati; 171 Superior Street, Cleveland; 115 Lake Street, Chicago; and in all the principal cities and towns in the United States.

SEND FOR A CIRCULAR. Oct-4

Howe's Improved Hay or Cattle Scale.

THE BEST IN USE!

First Premium over Fairbanks at Vermont State Fair '57 and '58. First Premium and no competition in '59. First Premium at 13 Different State Fairs. Silver and Bronze Medals at American Institute Fair, N. Y., 1859.

HOWE'S SCALES FOR ALL USES, have Great Simplicity and Wonderful Accuracy.

REQUIRE NO PIT—May be set on the top of the ground, or on a barn floor, and easily removed.

NO CHECK RODS—NO FRICTION ON KNIFE EDGES—All friction received on Balls. Weigh truly if not level.

Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction, or taken back.

Send for circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fairs, to

JAMES G. DUDLEY, General Western Agent,
April, 1860. 93 Main street, Buffalo, N. Y.

CAST STEEL BELLS,

FOR

CHURCHES, ACADEMIES, FIRE-ALARMS, FACTORIES.

FROM SHEFFIELD, England, have been tested in all climates, Europe and America. Weigh less, cost less per pound, have better tones, can be heard farther than other bells. They cost 50 per cent. less than

THE BEST COMPOSITION BELLS.

which are also sold by me at Makers' Prices.

Broken Bells Taken in Exchange,

or re-cast on short notice. Such bells will nearly pay for Steel Bells of the same size.

Send for a circular. Bells delivered in all parts of the United States or Canada, by
JAMES G. DUDLEY,
April, 1860. 93 Main street, Buffalo, N. Y.

Herring's Patent

FIRE AND BURGLAR-PROOF SAFES,

With Hall's Patent Powder-Proof Locks,

HAVE NEVER FAILED

IN MORE THAN 300 DISASTROUS FIRES.

The Safest and Best Safe in Use.

DELIVERED at any Railroad Station in the United States, or Canada, at the very lowest rates, by

JAMES G. DUDLEY, Sole Agent,
April, 1860. at 93 Main street, Buffalo, N. Y.

FEMALE AGENTS WANTED.

\$2 A DAY.—Agents Wanted to travel for the MAMMOTH & "FAMILY PICTORIAL." Only 75 cts. a year. Enclose 6 cts., for a specimen copy, to MARIE LOUISE HANKINS & Co., Publishers, 132 Nassau st., New York City. Aug.—if

A **AMERICAN GUANO**—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, Secretary.

J. K. CHAPPELL, Agent,
June—if 64 Exchange Street, Rochester, N. Y.

GUANO.

We would call the attention of Guano Dealers, Planters, and Farmers, to the article which we have on hand and for sale at

40 PER CENT LESS THAN PERUVIAN GUANO,

which we claim to be superior to any Guano or fertilizer ever imported or manufactured in this country.

THIS GUANO IS IMPORTED BY

WM. H. WEBB,

OF NEW YORK, FROM

Baker's and Jarvis' Islands, in the South Pacific Ocean.

Sold genuine and pure as imported, by the Cargo, or at retail by

JOHN B. SARDY, GENERAL AGENT,

No. 58 SOUTH STREET, CORNER OF WALL STREET,

NEW YORK.

It has been satisfactorily tested by many of our prominent Farmers, and analyzed by the most eminent and popular Agricultural Chemists, and found to contain (as will be seen by our circular) a large percentage of

BONE PHOSPHATE OF LIME AND PHOSPHORIC ACID,

and other animal organic matter, yielding ammonia sufficient to produce immediate abundant crops, besides, substantially enriching the soil. It can be freely used without danger of burning the seed or plant by coming in contact with it, as is the case with some other fertilizers; retaining a great degree of moisture, it causes the plant to grow in a healthy condition, and as experience has proved,

FREE OF INSECTS.

For orders in any quantity (which will be promptly attended to) or pamphlets containing full particulars of analyses and tests of farmers, apply as above. Oct.—if

For sale in Rochester by J. O. BLOSS & CO., 76 Main street.

THE PRAIRIE FARMER,

A Weekly Journal of

Agriculture, Horticulture, and Kindred Interests.

ESTABLISHED IN 1841.

THE Publishers will spare no pains or expense in making a paper every way reliable and truthful, and that shall be a true index of *Western Agricultural Interests*—an assistant on the Farm, in the Orchard, and a welcome Companion at the Fireside of Eastern and Western Homes.

TERMS REDUCED TO CLUBS.

One copy, one year..... \$2 00
Six copies, one year, and one to get up of club..... 9 00
Twelve copies, one year, and one to get up of club..... 16 00
Twenty copies, one year, and one to get up of club..... 25 00
Papers may be sent to different offices, if desired, in making up clubs.

The postage on the FARMER within Illinois is only 13 cents per year—out of the State, 25 cents.

All Yearly clubs made up previous to New Year's, will receive the paper until January, 1862—thus giving such person extra time gratis.

Samples sent free to all on application.

All friends of Rural Improvement are cordially invited to assist in circulating the FARMER. Address
Nov.—21 EMERY & CO, Chicago, Ills.

ANDRÉ LEROY'S NURSERIES,

At Angers, France,

THE proprietor of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends and the public that his CATALOGUE OF FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, SEEDLINGS, FRUIT-STOCKS, &c., for the present season is now ready and at their disposal. Apply to

BRUGNIERE & THEBAUD,
Nov.—21 51 Cedar Street, New York.

5,000 AGENTS WANTED—To sell 5 new inventions—very recent and of great value to families. ALL pay gr^t at profits to agents. Send four stamps and get 80 pages of particulars. P. O. v.—6c* EPHRAIM BROWN, Lowell, Ma. s.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Gene-see Farmer and Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address to **JOSEPH HARRIS, ROCHESTER, N. Y.**

CONTENTS OF THIS NUMBER.

The nutritive value of different Foods.....	361
Cure for Scours in Calves.....	362
Cooking Food for Cattle.....	362
Experiments with Artificial Manures on Oats.....	363
Rules for judging a Cattle.....	364
Sheep in California.....	366
Salt for Working Cattle—again.....	366
How to throw an Ox.....	367
Cheap Land in Connecticut.....	367
Weak eyes in Cattle—Breeds of Horses.....	367
Animal Food and Bread.....	368
Rats out of the Granary—Dollars in pocket.....	368
Dickens on Donkeys.....	368
Bee stealing.....	368
Lime and Wheat.....	369
Suggestions on Mental and Physical Labor.....	369
Should seed Wheat be brought from the South or North?.....	369
John Walton's Farm.....	369

HORTICULTURAL DEPARTMENT.

The cultivation of Black Currants for Wine in France.....	372
Scattered Notes on Horticulture.....	373
Guano for Grapes. For Grove Planting.....	374
Sulphur for Grape Mildew. Fruit Trees in Michigan.....	374
Gratting Grape Vines. Machine for Transplanting Trees.....	375
The Horrors of Horticulture.....	375

LADIES' DEPARTMENT.

Agriculture and Women.....	376
Original Domestic Receipts.....	376
Ornament for Dried Flowers.....	376

EDITOR'S TABLE.

The Markets.....	377
Items, Notices, &c.....	377, 378
Notes from Maine.....	378
Inquiries and Answers.....	379
Read what is said of the Genesee Farmer.....	380
Books, Pamphlets, &c., Received.....	380

ILLUSTRATIONS.

Richmond's Steaming Apparatus.....	362
Side view of a well filled-up Fat Ox.....	364
Hind " " " " " ".....	364
Front " " " " " ".....	364
Back " " " " " ".....	365
Machine for Transplanting Trees.....	375
Ornament for Dried Flowers.....	376

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

By **JOSEPH HARRIS.**

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

☞ All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

The Postage on the *Genesee Farmer* is only 3 cents a year in the State of New York, and 6 cents a year in other States. Specimen numbers sent free to all applicants.

The address of papers can be changed at any time.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

Subscription money may be sent at the risk of the Publisher.

Address

JOSEPH HARRIS,

Publisher and Proprietor, Rochester, N. Y.

**GENESEE FARMER
PREMIUM LIST
FOR 1861.**

CASH PRIZES! CASH PRIZES! CASH PRIZES!

January Cash Prizes.

1. FIFTY DOLLARS. In Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 37½ cents each.) for the next volume of the *Genesee Farmer* before the 15th day of January, 1861.
2. THIRTY DOLLARS in Cash to the person who shall send the second highest number, as above.
3. TWENTY DOLLARS for the third list.
4. FIFTEEN DOLLARS for the fourth.
5. TEN DOLLARS for the fifth.
6. NINE DOLLARS for the sixth.
7. EIGHT DOLLARS for the seventh.
8. SEVEN DOLLARS for the eighth.
9. SIX DOLLARS for the ninth.
10. FIVE DOLLARS for the tenth.
11. FOUR DOLLARS for the eleventh.
12. THREE DOLLARS for the twelfth.
13. TWO DOLLARS for the thirteenth.
14. ONE DOLLAR for the fourteenth.

SPECIFIC PREMIUMS.

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *Rural Annual* for 1861.
2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *Genesee Farmer*, and one copy of the *Rural Annual*, prepaid, by mail.
3. To every person sending us TWENTY-FOUR subscribers, (as above) we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

Those who send more than twenty-four will probably take one of the Cash Prizes. If not, Specific Premiums will be sent in the same ratio as the above.

A TWENTY-FIVE CENT PREMIUM TO EACH SUBSCRIBER!

Rural Annual and Genesee Farmer in Clubs.

**AS A STILL GREATER INDUCEMENT
TO FORM CLUBS,**

We offer the GENESEE FARMER for one year, and our beautiful twenty-five cent book, the RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1861, in clubs of eight or upwards, at Fifty Cents the two. In other words, for FOUR DOLLARS we will send eight copies of the FARMER for one year and eight copies of the RURAL ANNUAL, together with a RURAL ANNUAL for the person who gets up the Club. For EIGHT DOLLARS we will send sixteen copies of the FARMER and sixteen copies of the RURAL ANNUAL.

Any person sending us THREE DOLLARS for a club of eight of the GENESEE FARMER, shall receive one copy of the RURAL ANNUAL for his trouble.

We send the club to one address, or write the name of each subscriber on his paper, as requested.

Clubs are not required to be at one post-office, or sent to one address. We send the papers wherever the members of the club desire. It is not necessary that the club should be sent in all at one time. Names can be added at any time, and all that are sent in before the fifteenth of January will be counted in. Send on the names with the money as fast as they are obtained.

☞ Money may be mailed at our risk, and you need not "register" the letters.

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,
September 1, 1860. ROCHESTER, N. Y.



OCT 1969

15

