Agriculture, &c.,

BARN-YARD MANAGEMENT.

In the course of many visits we have paid to farmers throughout the country. one of the most noticeable defects to be found, even amongst those who may be fairly considered intelligent and progressive men, is the want of any proper system of managing their barnyards. It does not seem to occur to them that the making and saving of manure is the main point in any system of husbandry, looking forward to a steady amelioration and improvement of the productive capacity of their farms, be they large or small.

Some have their yards trodden into quagmires of mud, for want of some absorbent material; while others locate them on a hillside, from which every rain storm washes away all the richest and best qualities of the manure into some ditch or creek. Some again do their best apparently to save all the manure they can, yet allow it to lose much of its strength and value through being dispersed over a large extent of surface in the yard.

We propose to give a few general rules to regulate management of barnyards.

First—The yard should be so located and constructed that none of the urine or salts in the manure can be washed away.

Second—It should be entirely cleaned out, and every particle of manure be applied to the soil before the stock are to occupy it for the winter, and again commence the work of making their own food into plant food.

Third—The bottom of the yard must be made hard and solid enough to prevent the liquid elements of the manure from leaching away into the soil on which it is located.

Fourth—The entire bottom should be filled up with muck or dry loam, to act as an absorbent of the liquids; over this should be placed a layer of straw several inches in depth.

Fifth—A mixen should be formed, if possible, under a shed; to it should be carried all the droppings from the stables, byres, pigsties, etc., to be throughly incorporated together, and the straw and droppings of the yard mixed in as often as they can be got partially worked up by the treading of the stock. This mixen should be so managed that the manure, while being made, will ferment, yet not rapidly, so as not to become decomposed till near the time for applying it to the soil. This fermentation can be controlled by keeping the mixen moist, by adding water when too dry, and not allowing an excess of straw to get mixed into the mannre.

Sixth—The entire yard, including the layer of muck or loam at the bottom, should be cleaned out and added to the mixen at least once every three months, and a fresh supply of muck or other absorbent applied to the yard and covered with straw.

By a proper course of management the amount of manure made can easily be doubled, and the yard kept sufficiently clean and dry for the comfort of the stock that are turned into it during the day time, when loosened from their stalls. It is better to keep adding fresh layers of straw, a little at a time, as the surface of the yard gets wet and dirty, than to put on a large bulk at once that will take all winter to be worked up, and then be of small value for want of composting.

To get water enough for use in the mixen, and also to wash out the floors of the stalls and byres once in a while, a cistern should be provided in the yard, to which all rain-fall on the roofs of the various buildings adjoining the yard can be conveyed by pipes, and afterwards pumped out as required to be thrown on the mixen, or used for watering the stock, if the supply is sufficient for both purposes.

This making of a mixen will cause some extra work to the farmer and his hands, but the labour bestowed upon it will be more than amply repaid in the increased value of the large quantity and better quality of the manure manufactured by means of it. The object of having the mixen under cover is to prevent the too rapid evaporation by the sun of its best constituents, during the warm bright days of spring and early summer, before the land for root crops, to which most of the manure is usually applied, is ready to receive it. The trampling of stock on the mixen tends rather to improve it, by making it more solid and better mixed; hence it may be open to the access of stock, but they should not be allowed to lie on it.—*Canadian Farmer.*

DRYING ROOTS.

A new patented process of preparing roots for cattle feeding, by which it is claimed that they are doubled in value at a small cost, has been brought out in England. The principle of the process consists mainly in drying out a portion of the water contained in the roots, and so rendering them more concentrated, while the heat used in the process (the mode of applying which makes the patent) partially cooks the roots, and so makes them more easily digestible. By thus getting rid of a portion of matter (water) of which there is an excess beyond the actual needs of digestion, the roots are rendered much more valuable to feed to fatting animals, as being less bulky in weight, while more concentrated in substance, more can be consumed by the animal in a given time, and so the process of feeding rendered shorter, without the necessity of using expensive foods, such as meal or oil cake, to quicken the process of fattening.

The thing could easily be tried here, on a small scale at first, and if found successful and profitable, those of our farmers who make the fatting of cattle or sheep during winter a part of their routine, could easily enlarge upon the primitive method we propose to give, which is nothing else than to try the baking of a few bushels at a time in one of those brick bake ovens so often found on Canadian farms.

The roots need not be subjected to great heat, but put in after the batch of bread is out, and left in till the oven cools, keeping the door shut, but allowing egress by the chimney to the vapour evolved. A slight blackening of the roots, provided they are not burnt, would not hurt them. All the valuable flesh and fat-forming elements in the roots would still remain, as does the starch and gluten in the loaf after being baked. It is said that in the experiments tried in England it was found stock would eat greedily of dried mangels and turnips, and fatten much more rapidly than on the raw roots.—*Ib.*

HOUSES ON SAND.

Foundations for large and heavy brick buildings can be quite safely constructed on quicksand, even where your foot will sink rapidly when pressed on it, and also where the sand is full of water—the only requirement to ensure a perfect foundation under these conditions being that no future operation will allow of the escape of the quicksand, and that the base or lower bearing of the building on which the walls are to be erected should be first constructed of two-inch plank laid crosswise, say about three or four feet in width. On this should be laid another layer of two inch plank, but this should be laid lengthwise, crossing the lower tier. For very heavy walls another crosswise layer of planks may be laid; but for all ordinary heavy buildings, such as mill walls, the above two ply of two inch plank will be found sufficient. The fact of water being on the sand will not hurt the stability, or injure the walls in any way; nor will any settlement be as likely to take place as on ordinary soft clay, strange as it may seem. But beware of underdraining *after* the building is constructed, and thus removing the water from the sand. There will in this case be imminent danger of settlement; the quicksand, deprived of its water, will at once allow of alteration in relative levels.—*Ib.*

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N. P. KEMP,

GENERAL AGENT

AMERICAN TRACT SOCIETY,

NEW ENGLAND BRANCH,

BOSTON.

July 27. 3m.

MESSENGER ALMANACK.

JANUARY, 1871.

Full Moon, January 6th, 5h 9m. afternoon.
Last Quarter, " 14th, 2h. 42m. morning.
New Moon, " 20th, 8h. 17m. afternoon.
First Quarter, " 28th, 9h. 0m. morning

D. M.	Day Wk	SUN. Rise	SUN. Sets	MOON. Rises	MOON. South	MOON. Sets	High Tide at Halifax.
1	SU.	7 42	4 26	1 28	8 20	2 12	2 58
2	M.	7 42	4 27	1 54	9 3	3 12	4 4
3	Tu.	7 42	4 28	2 27	9 50	4 12	5 6
4	W.	7 41	4 29	3 5	10 38	5 13	6 1
5	Th.	7 41	4 30	3 50	11 29	6 11	6 47
6	F.	7 41	4 31	4 43	morn	7 8	7 28
7	Sa.	7 41	4 32	5 41	0 21	7 59	8 7
8	SU.	7 41	4 33	6 44	1 12	8 43	8 43
9	M.	7 40	4 34	7 50	2 3	9 22	9 20
10	Tu.	7 40	4 36	8 55	2 54	9 58	9 54
11	W.	7 40	4 37	10 8	3 43	10 31	10 32
12	Th.	7 39	4 38	11 17	4 31	10 54	11 13
13	F.	7 39	4 39	morn	5 19	11 21	11 57
14	Sa.	7 38	4 40	0 28	6 8	11 48	A. 44
15	SU.	7 38	4 42	1 43	6 59	A. 15	1 39
16	M.	7 37	4 43	2 54	7 51	0 48	2 46
17	Tu.	7 37	4 44	4 11	8 50	1 29	4 0
18	W.	7 36	4 45	5 23	9 49	2 15	5 12
19	Th.	7 36	4 47	6 30	10 50	3 10	6 20
20	F.	7 35	4 48	7 29	11 52	4 15	7 18
21	Sa.	7 34	4 49	8 16	A. 50	5 24	8 9
22	SU.	7 33	4 51	8 54	1 45	6 36	8 56
23	M.	7 32	4 52	9 27	2 36	7 45	9 40
24	Tu.	7 31	4 54	9 55	3 23	8 51	10 21
25	W.	7 31	4 55	10 19	4 8	9 54	11 1
26	Th.	7 30	4 56	10 44	4 51	10 58	11 39
27	F.	7 29	4 57	11 6	5 33	morn	morning
28	Sa.	7 28	4 59	11 29	6 15	0 0	0 17
29	SU.	7 27	5 0	11 55	6 58	1 1	0 59
30	M.	7 26	5 2	A. 25	7 42	2 1	1 46
31	Tu.	7 25	5 3	1 1	8 31	2 45	2 49

THE TIDES.—The column of the Moon's Southing gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newport, and Truro.

High water at Pictou and Cape Tormentine, 2 hours and 11 minutes *later* than at Halifax. At Annapolis, St. John, N. B., and Portland Maine, 3 hours and 25 minutes *later*, and at St. John's, Newfoundland, 20 minutes *earlier*, than at Halifax. At Charlottetown, 2 hours 56 minutes *later*. At Westport, 2 hours 54 minutes *later*. At Yarmouth, 2 hours 20 minutes *later*.

FOR THE LENGTH OF THE DAY.—Add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising.

FOR THE LENGTH OF THE NIGHT—Subtract the time of the sun's setting from 12 hours, and to the remainder add the time of rising next morning.

NOVA SCOTIA RAILWAY.

WINTER ARRANGEMENT, 1870—'71.

COMMENCING FRIDAY, DEC. 16, 1870.

UNTIL further notice, Trains will run as follows:—

Down Trains.

Leave—	Passengers, Mails and Through Freight. No. 1. A. M.	Passengers, Mails and Through Freight. No. 3. P. M	Accommodation. No. 5. P. M.	Accommodation. No. 7. P. M.
Halifax	7 00	7 45	2 30	3 00
Windsor Junction	7 45	8 30	3 30	4 00
Mount Uniacke	.....	9 08	4 22	.....
Windsor arr.	.....	10 10	5 50	.....
Windsor depart / Kentville arr. / Annapolis	W. & Annp. R'ly	10 20 / 12 00 / 4 40	6 00 / 8 00 /	..... / ..... / .....
Elmsdale	8 40	.....	.....	5 15
Shubenacadie	9 10	.....	.....	5 55
Truro arr.	10 30	.....	.....	7 30
Do. depart	10 45	.....	.....	.....
	P. M.			
New Glasgow	2 08	.....	.....	.....
Pictou, arr.	3 00	.....	.....	.....

Up Trains.

Leave—	Accommodation. No. 2. A. M.	Accommodation. No. 4. A. M.	Passengers, Mails and Through Freight. No. 6. A. M	Passengers, Mails and Through Freight. No. 8. A. M.
Pictou	.....	.....	.....	11 00
New Glasgow	.....	.....	.....	11 52
				P. M.
Truro, arr.	.....	.....	.....	3 05
Do. depart	7 15	.....	.....	3 20
Shubenacadie	9 10	.....	.....	4 38
Elmsdale	9 45	.....	.....	5 10
Annapolis	W. & A. R'y.	.....	10 15	.....
			P. M.	
Kentville		7 00	2 45	.....
Windsor, ar.		8 50	4 30	.....
Windsor depart		9 00	4 45	.....
Mount Uniacke	.....	10 36	5 55	.....
Windsor Junction	10 55	11 30	6 40	6 05
Halifax	11 45	12 20	7 20	6 50

Stages connect at Truro with No. 1 Train for Londonderry and Amherst, connecting there with Intercolonial Railway to Sackville, Dorchester and Moncton, and with E. & N. A. Railway to St. John, and with Stages for Pugwash, Wallace and Tatamagouche.

Connections are made at New Glasgow with (Lindsay & Co's) Stage Line to Antigonish, Strait of Canso, St. Peters, Sydney and Cow Bay; also for Sherbrooke and Gold Diggings.

The steamers of the P. E. I. Navigation Company, connect with Trains at Pictou during the season.

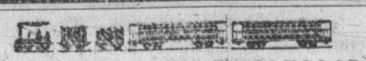
Through connections are made with the Windsor and Annapolis Railway at Windsor, with the steamer "Emperor" at Annapolis for St. John, and with the steamer of International Line to Portland, and all parts of Quebec and Ontario.

An express train will be run between Annapolis and Halifax, connecting with the steamer, leaving Annapolis at 3 p. m., or on arrival of steamer, (*on steamer days only.*)

Through tickets issued at A. & H. Creighton's, Hollis Street, Halifax, and at the Railway Ticket Office, Richmond.

GEO. TAYLOR,
Genl. Supt.

Railway Office, Richmond, 10th Dec., 1870.
Dec. 21.



WINDSOR AND ANNAPOLIS RAILWAY.

TIME TABLE, No. 6.

Commencing 16th Dec., 1870.

Miles.	Stations	Passengers and Freight	Passengers and Freight	Steam Boat Express Mo We & Sat.
	ST. JOHN, N. B., by Steamer			A.M 8.00
		A M.	A.M.	P M
	Annapolis		10.15	3.00
8	Roundhill		10.40	...
14	Bridgetown		11.05	3.40
19	Paradise		11.20	....
22	Lawrencetown		11.30	4.00
28	Middleton		11 50	4.10
31	Wilmot		12.00	....
			p.m.	
35	Kingston		12.15	....
40	Morden Road		12 35	....
42	Aylesford		12 55	....
47	Berwick		1.10	5.00
50	Waterville		1.20	5.05
54	Coldbrook		1.30	....
59	Kentville, arr		1.45	5.30
		a.m.		
	Do, leave	7.00	2.35	5.40
64	Port Williams	7.25	3.00	....
66	Wolfville	7 40	3 10	6.00
69	Grand Pre	7.50	3.25	....
70	Horton Landing	7.55	3.30	....
72	Avonport	8 05	3.40	....
77	Hantsport	8.20	4.00	6.30
79	Mount Denison	8.30	4.05	....
82	Falmouth	8.45	4.20	....
84	Windsor	8.50	4.30	6 50
		p.m.		
129	HALIFAX, by N. S. Railway	12.20	7.20	9.00

Miles.	Stations	Steam Boat Express Mo We & Sat	Passengers & Freight	Passengers & Freight
		A.M	A M.	P.M.
	HALIFAX, by N. S. Railway	7.45	7.45	2.30
45	Windsor	10.20	10.20	6.05
47	Falmouth	10.25	10.25	6.05
50	Mount Denison	10.45	10.45	6.20
52	Hantsport	10.50	10.50	6.30
57	Avonport	11.05	11.05	6.50
59	Horton Landing	11.10	11.10	7.00
60	Grand Pre	11.15	11.15	7.10
63	Wolfville	11 25	11.25	7.25
65	Port Williams	11.35	11.35	7.35
70	Kentville—arrive	11.50	11.50	7.50
			p.m	
	Do. leave	12.00	12.45	
75	Coldbrook		1.00	
		P M.		
79	Waterville	12 25	1.10	
82	Berwick	12.30	1.30	
87	Aylesford	12.50	1.50	
89	Morden Road		1.55	
94	Kingston		2.15	
98	Wilmot		2.30	
101	Middleton	1.20	2.45	
107	Lawrencetown	1 30	3.05	
110	Paradise		3.15	
115	Bridgetown	1.45	3.40	
121	Roundhill		4.10	
129	Annapolis	2.30	4.30	
190	St. John, N.B., Stmr	9.00	....	

VERNON SMITH,
Manager.

Kentville, 10th Dec., 1870.
Dec. 21.

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