

half to three hours a day; work from seven to eight hours, and have religious instruction every day. They make chairs, brushes, and shoes, and become as expert as men. The success here in reforming, from want of classification, seems to have been small. The institution at Randall's Island is the oldest in the country, having been established in 1825. Nearly thirteen thousand boys have passed through it; and at the close of last year there were 961 within its walls. Of an expenditure of upwards of an hundred thousand dollars, the labour of the children brought in nearly a half. The cost of maintaining each inmate, after deducting earnings, is \$61. The Managers say here that from classification, three-fourths of the whole number are reformed. All very well for criminals, but might it not be better and cheaper, both in New York and elsewhere, to try and catch those waifs at an earlier stage—before they had graduated in crime at all!—*Globe*.

VI. Papers on Agriculture.

1. THE USE AND ABUSE OF BARN-YARDS.

There is no doubt that all farm animals are benefited by exercise in the open air, and by basking in the warm sun on pleasant winter days. Therefore, every barn should have connected with it dry, pleasant, and well-sheltered yards; and the use of barn-yards ought to be confined pretty nearly to this single purpose.

When the barn-yard is made to serve as a feeding rack and as a manure cellar, the use degenerates into an abuse. Probably three-fourths of the cattle and sheep in the United States, or at least of those which are sheltered in any way, are fed mainly in open racks in the barn-yard; and on farms where corn is grown, bundles of stocks are thrown to them, and they are allowed to eat the leaves and the softer tops—the main body of the stock, which, under proper use, is a valuable fodder, being trampled under foot and mixed with the manure. Stalks thus treated require a good part of the ensuing summer to bring them to a proper condition for application to the land. Of the hay thrown into the racks, the best part is eaten and the coarser parts wasted. It being the custom to feed in this way during the coldest and stormiest weather, cattle are obliged to stand exposed out of doors while consuming their fodder, and generally while chewing the cud. Thus, not only is one-half of the product of the field practically wasted, but that which is consumed is expended largely in making up for the loss of heat which the animal necessarily undergoes under such exposure. In the better farmed counties of Pennsylvania, where enormous stone barns are bursting with the produce of rich acres, and where the barn-yards are usually enclosed by high cemented stone walls, it is not unusual to find, towards spring, a deposit five or six feet deep, over which the stock are constantly trampling, and which contains certainly more than one-half of the valuable fodder that has been wastefully thrown out for them to consume. These farmers boast of the immense quantities of manure that they manufacture and apply yearly, and certainly the results of the application are good. At the same time, the manure is very generally, even for use in the succeeding autumn, too coarse to be neatly spread over the soil; and its cost, considering the expensive material of which it is made, must reach an amount which, if it could be reduced to dollars and cents, would appal the farmers who use it. Probably even the best farms where this practice prevails would be able to winter from fifty to one hundred per cent more stock, if everything that is raised were simply cut and fed in mangers in the barn; while the resulting manure would be so much shorter, and ready for use so much earlier, that the system of farming might be almost revolutionized. If, in addition to cutting, the forage were also steamed, the result would be even better. But assuming as a basis that, by cutting alone, fifty per cent. of the fodder would be saved, we see that by a slight expenditure of labor—for with the use of a horse-power cutter, the labor would be very slight—the income derived from the use of forage crops would be fully doubled, and this with no appreciable addition to the interest on capital or to the cost of labor. Furthermore, the condition of the stock, the vigor and thrift of their progeny, the quantity and richness of milk, and the quality and quantity of wool, would be greater, with a smaller expenditure of material. There are many farmers who cannot, of course, from the want of suitable buildings, and from the real or supposed inability to employ sufficient help, adopt this process of cutting food, or even of feeding under cover; but we suggest to such, that it would be an advantage to be able to do this, and that its accomplishment should be one of the objects at which they aim.

There is a widely prevalent notion that animals are rendered harder and more healthy by exposure, by having to "rough it." This is nonsense, as will be readily acknowledged by any man who will compare the stunted animals of the colder regions of New Eng-

land whose principal shelter in winter is often the lee side of a fodder stack, or a soft bed under a snowbank, with the well housed and groomed animals of any well managed dairy farm. These latter keep in better condition, are much less subject to pneumonia, garget, and abortion, produce richer milk and finer calves, make more and better beef, and are, in all respects, nearer to the type which every farmer should desire to attain.

2. THE FARMER'S LUXURIES.

Talk of epicures! of broiled woodcock, and pies of pheasant-tongues! What is all that, with its highest seasoning, compared with the relish with which three hours' mowing has seasoned these bits of common food to the ruddy-brown farmer and his sons! The ambrosia of the idle dieties of Olympus was mere pea-soup compared with the dainty loaf of brown bread to the man who grows and eats it by the sweat of his brow. It is in this seasoning of toil that Nature and Providence bless the humblest food to the farmer with relish unknown to the epicures of Royal Courts. Drink, is it? Juleps, nectarine punches, and other artistic mixtures to delight the taste? Look into that dark deep well, with the cold water just perceptible. That is more delicious drink to the farmer than was ever distilled from nectar for Jupiter. He has no golden or silver goblet to drink it from. The old oaken bucket, swinging on its iron swivel, is better to him than all the chased ware of luxury. See him at the windless or the well-sweep, with his face red and dusty, and his mouth and eyes chafed with hay seed, and his throat dry with thirst. Hear the big bottomed bucket bump against the moss-covered stones as it descends. There is the splash, and the cold, gurgling sound at the filling; and now it slowly ascends, with a spray of water drops dripping against the wall, every one giving a new edge to the farmer's thirst. There it is, standing on the curb before him, mirroring his moistened and reddened face, which bends to the draught. There is drink for you, that Nature has distilled for the farmer's lips, the like of which fabled Olympus never knew. So with sleep. How many thousands of men, clothed in fine linen, faring sumptuously every day in the most gorgeous abodes that wealth can furnish, would give half their fortunes for the deep enjoyment of the farmer's Slumbers!—*Thoughts and Notes at Home and Abroad*.

VII. Biographical Sketches.

1. DONALD BETHUNE, ESQ., Q.C.

On the 19th ult., at Toronto, Donald Bethune, Esq., Q. C., Barrister-at-Law, departed this life. Mr. Bethune was born in July, 1802, and so had nearly completed his 67th year. Being of a sound constitution and robust frame, it was not unreasonably anticipated that many years of active life were still before him. He received his early education at the Grammar Schools of Cornwall and Augusta; and in 1816 was articled to the late Justice Jones at Brockville. With this gentleman, until the end of his life in 1848, Mr. Bethune continued on terms of great intimacy. He was subsequently in the law-office of the Hon. H. J. Boulton, of this city, whose warm friendship he also enjoyed. He commenced, at Kingston, in 1824, the practice of the legal profession, in which he was very successful; and was elected M. P. for Kingston in 1828. He was afterwards, in succession, Judge of the Districts of Bathurst and Prince Edward; and, in the exercise of these duties, gave the highest satisfaction. Having, however, a peculiar taste for mechanical experiments, he was led, unfortunately for himself, into steamboat enterprises to which he altogether devoted himself for many years, at first with great pecuniary success; but continued competition finally baffled all his expectations. The impression that he had made some improvements of great practical value in the locomotion of steamers and rail-carriages took him to England, where, in the carrying out of experiments connected with his plans, he spent several years of his life. Being at length induced to abandon them, which, though suggestive and useful, were in some measure superseded by the rapid progress of mechanical science, he returned to Canada, and resumed the practice of his profession of the law at Port Hope, in 1858; but the loss of his office with the whole of his valuable books and papers, by fire in 1867, along with other discouragements, led him to come to Toronto, where, through the kindness of the Attorney-General for Ontario, a way was opened to him for a moderate competence during the remainder of his life. These expectations, however, were too soon cut short by death. He leaves behind him a widow after a union of unbroken mutual affection and devotion of more than forty years. Mr. Bethune was a man of much logical penetration and extensive reading. At an