

## Agriculture, &amp;c.

## Agriculture of California.

The productions of the agricultural portions of California are as wonderful as those of the mining regions. Nature has, with a prodigal hand, lavished her favors on this State, and has given some parts of it power of production unequalled in the world. Farm-work is conducted in a way very different from what it is in New England, growing is good part out of the great difference in climate. To us, New Englanders, it does not seem much like farming to see no large barns to store the crop in, and no sheds to shelter the animals; but the climate makes these buildings unnecessary. A brief outline of a farmer's years work on a wheat farm, will explain this. I will take a farm in Solano county, where the soil is what is called "a dobe," a black, stiff, sticky loam, as any body will testify who has walked on it in the rainy season. In the dry season this soil becomes nearly as hard as a brick kiln, and cracks open in seams wide enough to admit the hand. Ploughing begins as soon after the rainy season has set in as the soil is made soft, which is usually near the middle of December. To save the hire of laborers, gang ploughs are used, just as we Maine folks use gang-saws.

Indeed, they have in California a machine which is combined plough, sower and harrow, and with the use of it, drawn by six mules, one man can plough, sow and harrow in four to five acres of grain in a day. The ground being prepared in the usual way, the wheat is immediately sown. The next work on a grain farm is haying. It is now the dry season, and the hay-maker can lay out his work without any reference to a rainy day or even showers. Haying commences the latter part of May. And here let me say, that over a large section of the State the wild oat is the natural grass, and in some fields it is so well headed that it is not readily distinguished from the cultivated grain, at least by the uninitiated. I have walked in fields where it stood as high as my shoulders, and supposed it was the cultivated article, till informed by the farmer that it was wild. Compared with the way we sometimes have to hurry the thing up in New England, haying in California is an amusement. The mower rides around the field, on a mowing machine, followed by spreaders, and when he has cut as much as the hands employed can take care of, before it gets too dry, he stops. If the hay is to be used on the farm, it is put in a stack the next day after it is cut; and if it is to be sold at a distance, it is put in bales instead of stack. If the grass in a particular field is intended for the market, a hay press is brought on the ground to start with, and just as fast as the hay is made, it goes into bales, which are bound with a small white rope, without strips of wood. To carry the hay to the press no wagon is used, but it is dragged along by horse-power, a rope being thrown around the hay-cock. The only time the hay is lifted with the fork is, when it is put in the press. In two days a large field of standing grass can be put in bales fit for the market. Wheat harvest usually begins about the first of July, and when the gathered grain is fit for threshing, a machine is placed in a central part of the field, and wagons are employed in bringing the sheaves to it. The wheat goes directly from the machine into ready-made sacks, which hold bushel and a half, and is sewed up ready for the market. In this condition it is piled up in the open field, and waits a purchaser. In the autumn of 1861 five large ships loaded with wheat at the little town of Vallejo, in Solano county, the wheat being taken directly from the field in sacks.

As in hay-making, so in harvesting wheat, the process is often conducted in such a way as to make the standing crop immediately ready for the market. Here is a performance that will astonish the largest wheat-growers, east of the Rocky Mountains. In the summer of 1862 the visiting committee of the Agricultural Society of California witnessed the wheat harvest on the farm of Hutchinson and D. Malone, in Yolo county. Four headers (reaping machines) and two threshers, cut, threshed and sacked seventy-five acres per day of wheat, which yielded from thirty-five to forty bushels to the acre. Taking thirty-seven and one-half bushels as the average, we have two thousand eight hundred and twelve bushels of wheat at night, sewed up in sacks ready for shipping, which in the morning was standing grain. This farm contains two thousand and seven hundred acres. From this brief outline of the year's routine on a wheat farm, it appears that no barns nor granaries are needed to store the crop in, and as the climate is mild, the cattle do not require warm shelter. Small farmers have a building to house their horses in, and to cover their farming tools and machines. Haystacks usually have a roof.

The same soil is not adapted to all kinds of crops. For example, the fine wheat lands of Solano county will not produce potatoes, while the lands on the coast near the ocean, as at Bodega, bear that vegetable in very great abundance and excellence. Volunteer crops are something new to a New England farmer. A good crop of grain, and of potatoes too, is often gathered from the previous year's sowing or plowing. In Sonoma county, a farmer pointed to a field of grain which was very heavy, and said that was a volunteer crop, i.e., nothing had been done to the land this year. I could see no difference between it and a field adjoining which was sown this year, both bearing heavily. A farmer in Napa county, whom I visited, showed me a patch of volunteer potatoes which looked as well as any on his fine farm, and as we had some of the potatoes on the table, I know they were of excellent quality.

As a specimen of volunteer crops, I will cite

the case of Mr. Comstock's farm, which is situated eight miles from Stockton. In 1858 one hundred acres yielded its third crop of barley, since plowing or sowing. The same year one hundred acres sowed to wheat in winter, and eight hundred acres of volunteer, nothing done to it but "bush it in," made an aggregate crop of fourteen thousand bushels of clear wheat, and two thousand five hundred bushels of screenings. This is a large farm, Mr. C. having sixteen hundred acres under plough.

This readiness of the soil to volunteer a crop is very fortunate in a country where labor is so high, and as the soil is no respecter of persons, it is as generous to the poor man, who owns only 160 acres, as to the rich one who cultivates thousands.

The great strength of California soil is exhibited in various ways; such as the large amount of grain raised from an acre; the great height of corn; two crops in one season; enormous size of product, &c.

Yone Valley, in Amador county, through which I travelled last June, is rather famous for its tall corn, as well as other products. The corn in a field of 180 acres ranged from fourteen to twenty feet in height, and the ears were thick and heavy. The State society gives a premium on the best ten acres of wheat, and in 1859 a ten acre lot in this valley took the premium, producing sixty-seven and a half bushels to the acre. The previous year, Mr. W. H. Drum, whose farm is on the Yuba River, a few miles above Marysville, presented ten acres of a 100 acre lot for the premium. The ten acres produced a little more than eighty-four bushels to the acre, and the whole hundred acres averaged over eighty bushels to the acre. In Tulare county, which lies two hundred miles south-easterly from San Francisco, we find farmers after harvesting wheat, putting in corn, and with the aid of irrigation, getting a good crop the same season. That is as well as we can reasonably expect land to do, to produce a crop of wheat and another of corn the same season.

From what I have said, one would suppose farmers would get rich very rapidly; but this is not so. There are many drawbacks to reduce his profits, the leading one being the cost of carrying his produce to market. There are in the State but a few thousand wheat-producing acres that can be approached by ship, in which the grain is exported, and consequently after a land carriage of greater or less length, it is floated to San Francisco, to be re-shipped for the distant market. Every time a sack of wheat is handled, a little is taken from the farmer's profits.

And then again, there is the high cost of labor. Farm hands hired by the year are paid \$30 per month and boarded; if hired only while harvesting is going on, they are paid about \$2 per day, their wages depending somewhat on their skill.

Lastly and worstly, if a farmer has to borrow money, he must pay for the use of it, two per cent. a month.—W. & R.

## Correspondence.

For the Christian Messenger.

## European Correspondence.

VOYAGE TO ENGLAND—LIVERPOOL DOCKS—VAST COMMERCE AND RESOURCES OF ENGLAND—HORSES—AGRICULTURE—THE HARVEST—DEATH OF DR. RAFFLES AND LORD CLYDE.

London, August 22nd, 1863.

MR. EDITOR,—

When travelling from home I have sometimes written, for the readers of your widely circulated paper, a communication conveying my observations and impressions of the things I met with in my journeys. I have thought of following up this plan again, though many who will see this have passed over the same ground, and I witnessed the same scenes I may speak of, still many others have not, and may glean something new to them out of my hurried observations.

I left Cunard's wharf at Halifax, on the morning of the 7th inst., with some 75 other passengers in the steamer *Africa*. The day was throughout and the next very fine, we made rapid progress. The ladies shaded themselves with their parasols, which is unusual at sea, whilst the children chased each other around the deck in mirthful sport. The next eight days we had head winds and a chop sea, which made it to myself and many others very disagreeable, but the voyage ended in ten days without incidents worthy of record. If a good vessel, well ordered, well found, and well conducted, with passengers of a most agreeable description trying to conduce to each other's comfort, could make a sea voyage tolerable, I ought not to complain, as we had a combination of all these circumstances. But what are velvet cushioned sofas, gu'd saloons, a table groaning with all the luxuries that an epicure could demand, to one whose head is reeling and whose heart is faint, and who is sighing for a few rods of dry land to place his unsteady feet upon. Still it one must go to sea there could be no better mode of proceeding than the one I took; but my experience is that a square acre of dry land is of more value than a thousand miles of

ocean. We landed at Liverpool on a fine morning, early, the ship had gone into dock in the night whilst the passengers were quietly sleeping. On first coming on deck one is struck with the forest of masts presented by the great fleet of shipping quietly resting in the magnificent docks of the town. It is difficult to describe these inland basins, but I would say that the Mersey is the river leading up to Liverpool and is, opposite the town, about a mile wide. The tide rises and falls in the river about 30 feet, pretty much the same as in the Bay of Fundy, and the current runs very strong, so that it would be injurious to allow large ships to ground, and without other than the natural conveniences this would occur. But to obviate this difficulty large areas of ground have been dug out and walled round to the depth of twenty-five feet, and outlets to the sea secured with ponderous gates. These are opened for the entrance and exit of vessels at high water and then closed, and the tide outside ebbs off whilst the water remains inside, and the vessels float as quietly as on a mill-pond. These docks or basins, extend from the river inland a quarter to three quarters of a mile, and the vessels appear to lay in the midst of the town, as streets and roads go outside of them and amongst them. To visit these docks is not the work of a few hours, I spent nearly three days and saw but a part of what constitutes the great commercial activity of Liverpool; but one may conceive of the great amount of shipping that can fill five miles in length of docks, by half a mile in width. Here are ships of the largest size delivering cargoes from nearly all the ports in the world and taking in cargoes for similar places. Along the docks are sheds of vast size and of great convenience where cargoes are put out, and where others are deposited previous to taking in. A walk among the docks shews one the unmistakable greatness of the commerce of the port. Cargoes of cotton, rice, indigo and other most valuable commodities are pouring out on the quays from the India ships; the Chinaman is in the next dock putting ashore his thousands of chests of tea, his bales of silk and manilla; a little further on the Mauritius, Brazil, and West Indies, are deporting their cargoes of sugar, molasses, and rum; then the North American ships unload unlimited quantities of wheat, flour and provisions.

The timber ships with their cargoes from Quebec, New Brunswick, and Nova Scotia, form no inconsiderable item in the trade of Liverpool. Acres of ground are covered with the different descriptions of the productions of the forest, and one has to go abroad to learn that the most magnificent timber and deals that can be produced, are from the forest of his own little-known Province. But the commerce of this country is not discovered more, if it be as much, in its imports as in its great exports. The ponderous sheds are receiving from the various country railroads, canals, and other conveyances, untold value, in the shape of manufactured goods. To see the docks piled with packages would lead a stranger to suppose that Manchester had been emptied of its cotton fabrics, that the iron districts had removed their great accumulation of metals, that the salt and coal productions had been accumulating for years to disgorge at once for foreign shipments. But the day ends and these vast accumulations are safely stored in the holds of the outward-bound ships; and the next day witnesses a like proceeding. New ships haul in and goods again pour forth to fill them; and thus it goes on from day to day, and from year to year without abatement and with an ample supply still in store.

Our farmers would, I think, be surprised to see the powerful horses which remove the goods to and from the docks. They are very large and very fleshy, and I thin' would average in weight 2000 lbs., some I judged 2500 lbs. Their symmetry is perfect. They look handsome and are well groomed and well cared for, their strength is equal to their size. I saw 50 bbls. of flour in one cart, and six large hogheads of sugar equal to six tons on another, drawn each by two horses over rough-paved streets. But I fear I am too minute and will not interest your readers by these descriptions.

I left Liverpool yesterday for this place, we travelled the distance (210 miles) in 5½ hours. I observed by the mile stones that we went at the rate of a mile in 90 seconds, the cars, and carriages, here are quite inferior to those used on American rail-roads. But the roads are better and every thing is so conducted as to insure comfort and regularity. I have been here before, but never at a period when the country appeared to such good advantage. The season has been a propitious one and all are rejoicing in an abundant harvest. From Liverpool to this place the scenery was magnificent, fields of rich golden wheat, with tall stalks and bended

heads, were most numerous on each side of the road. The reapers were hard at work, and where the sheaves were put up they stood on the ground thicker than I ever before saw them. The grain before being reaped stood upright, seemingly being so closely sown that it could not lodge. The fields were all evenly ripened, no green straws seen in an acre and so yellow that we would pronounce it dead ripe. A ten or twenty acre field would be joined by one of equal size of oats or barley and then one of peas, one of horse or broad beans, and on either side with a large one of turnips, interspersed with rich pasture, dotted over with fat and full-fleshed cattle. In the whole journey I did not notice ten acres of uncultivated land; and the whole was smooth and as well cultivated as a garden. I saw not a stone on a field for the whole distance, nor weeds or briars. My observation yesterday leads me to estimate in some degree the great agricultural wealth of England. Still I am told that I came through rather an inferior part of the country. The harvest is nearly gathered and all are rejoicing in its abundance; and to a country having 30 millions of hungry mouths to satisfy with bread, the importance of a good harvest cannot be overestimated. In my journey referred to I saw but few fields of potatoes, but still I learn that the crops in other parts are good, I did not see an orchard or one fruit tree from Liverpool to this place, but as there are plenty of apples and pears in the market I presume there are orchards somewhere. I saw early small pears, selling, ten for a penny, and moderate sized apples three for a penny.

As I have only been five days on shore I cannot give you much of the current news of the country; the American conflict is not much referred to, but I found where talked about a general sympathy with the south prevailed. The "Florida" Confederate steamer, is in the channel and the American ships are terrified to leave port. In fact our vessels are carrying the goods to the United States, formerly shipped in their own vessels, and a large number of American vessels are advertised for sale. Two deaths have just occurred of notable men. The first, that of Dr. Raffles of Liverpool, an Independent minister of much celebrity, who has successfully labored there for half a century or more. Connected with that respectable christian body he was looked upon as a part and parcel of the community with whom he had grown up, and in whose progress and welfare he ever took a deep interest. His loss is mourned over by all classes though his death was not unexpected. He was contemporary with John Angell James, and William Jay. He occupied the church presided over formerly by the lamented Spencer. The other death is a national loss, that of Lord Clyde. Your readers will remember him as Sir Colin Campbell, sent out by Her Majesty to take charge of the troops in the Indian revolt. He was successful; but his health, like that of his brave associate Havelock and Ingles, failed, and he, another of the Indian heroes, has fallen. For half a century he has been prominent as an actor on the battle field. In Spain, at Waterloo, China, the Crimea, and India, he was ever a successful leader. His body is, to-morrow, to be quietly deposited in Westminster Abbey; to rest among the heroes who were contemporaries and others who went before him.

J. W. B.

For the Christian Messenger  
Acadia College Agency.

Sackville, N. B., Aug. 26th, 1863.

DEAR EDITOR,

You are aware that our Convention closed yesterday. As you will give all necessary information to the public of the doings of that convocation, it is needless for me to speak thereof.

After my last communication to the friends of the College through your very valuable sheet, I resumed my labours with the Pine Grove Church under the pastoral care of our valued brother, Rev. Wm. Porter. You are aware perhaps that in this place there is an extensive relationship by the name of Dodge. It will be found on reading the Minutes of the Convention of the present year, that they have very generally contributed to the worthy object for which I labour. They are a well-favoured people, and for the most part "sons of God." The place will be getting too strait for them ere long, and it would seem desirable that they should somewhat more mingle with the children of men. There may be giants in these days as well as in former times, for some of the seniors are men of great physical structure even now, and, as a whole, are not by any means behind