

57 The Agricultural matter published in the WEEKLY GLOBE is entirely different from that which appears in THE CANADA FARMER.

58 CANVASSING AGENTS WANTED.—First-class men, of good address, steady, and pushing, to canvass for the CANADA FARMER. Address, stating employment, previous engagements, age and references, Publishers of the CANADA FARMER, Toronto.

## The Canada Farmer

TORONTO, CANADA, JUNE 15, 1876.

### Canada at the Centennial.

The Canadian display at Philadelphia exceeds anticipations, surprising even Americans into an acknowledgment of its superiority. In furs and raw materials, the Dominion stands almost unrivalled: her agricultural and other industrial machinery is unsurpassed, while in many of the higher branches of art she will be able to hold her own with the most advanced nations. She is the only country that feels justified in sending out musical instruments in rivalry with those of New York and Boston. Her marble work, elegant furniture, boots and shoes, pottery, &c., are all attracting attention and eliciting encomiums on every hand. We have little doubt too, that when the proper time arrives, she will give an equally good account of herself in agricultural products, roots, fruits, grain and vegetables, the special exhibition of which is to extend off and on from July to November. Her list of stock entries recently completed, leads to the expectation that she will not be behind hand in that department. The Commissioners have made requisition for 300 stalls, and as free transportation home is granted by the railroads, and the occasion offers an unprecedented opportunity for the sale of animals while on show, the display will, no doubt, be choice. The short-horn, Hereford, Devon, Galloway, Cotswold, Southdown and other interests are to be well represented.

Altogether Canadians may justly feel proud of the exhibition, which, should it fail in all other respects, has already accomplished for them one great object, viz. that of placing their country in its proper light before the world.

### The English Meat Markets.

A reference to the last report of the English Board of Trade shows a large and steady improvement in the importation of certain classes of animals into Great Britain. For purposes of comparison the transactions of the first quarter of 1874 are contrasted with those of the same period this year, as follows:

	1st Quar. 1874.	Value.	1st Quar. 1876.	Value.
Oxen & Bulls	15,314	£ 504,973	29,855	£ 613,530
Cows	5,118	100,562	8,746	166,888
Calves	4,176	20,926	5,891	15,545
Sheep & Lambs	125,923	251,965	203,380	418,841
Pigs	—	91,111	5,001	17,333

Showing a remarkable increase in beefs, sheep and lambs, with a falling off only in the matter of calves and swine. It will be observed likewise that the increased supply is more than met by the increasing demand, for prices, instead of falling, have gone up. Oxen and bulls in 1874, averaged about £19 a head; this year, with nearly double the importation, the average is £21 10s. Cows have held their own, while sheep have advanced from £2 4s. in 1874, to £2 12s. in 1876. Passing on again from these to the imports of dead meat, we find an increase of 57, 571 tons bacon over the quantity imported during the first three months of 1875. Salted beef, increase nearly 9,000 tons; and beef, fresh, or slightly salted, over 7,000 tons. Commenting on these returns, and on the fact, too, that the demand for tinned meat has decreased, showing that Englishmen must have their beef in the joint or steak, the *Farmer*, English, adds: Australia is too far from our market to furnish the supplies fresh. From Canada the transit is shorter than from any other country that can supply the market with meat; and in feeding beef for shipment to England, and in making more cheese of the best quality, the *Canada Farmer* will, for the future, realize his greatest profits.

### Sunstroke

EDITOR CANADA FARMER.—The approaching hot weather induces the thought that it will be well to guard against the dangerous effect of sunstroke. I some time ago read of a gentleman who had been affected by this malady, and found that whenever afterwards he ventured to go into the sunshine, he was seized with a distressing headache. He covered his head with a green umbrella, thinking by that means to avoid the heat of the sun, which he imagined to be the cause; but without its producing any relief. He found much to his surprise on his going out one night into the bright moonlight that his head was similarly affected, and he thought of the words "The sun shall not smite thee by day, nor the moon by night, Ps. cxxi, 6. On reflecting on the subject, he concluded that it was not the green rays of the sun that produced the effect, but that it was the yellow rays as reflected by the moon that affected him. He therefore determined to try the experiment of covering his head with a yellow material, so as to absorb the yellow rays, and much to his delight he found that by wearing this yellow covering, he was perfectly secured from pain. I think it would be wise to follow this gentleman's example, and as prevention is better than cure, it may be well to introduce the fashion of wearing a yellow muslin round the hat, with the ends hanging down behind, covering the neck and spine, which are liable to be affected as well as the brain. Turmeric yields a cheap yellow dye, and even a straw hat may prove of great service.

J. F. WILKEY.

Exeter, England.

### Blue Lights for Heating Purposes.

A new light theory, based on experiments conducted by General Pleasonton, of Philadelphia, is attracting attention. Briefly stated, it is, that the sun's rays, passing through panes of alternate blue and plain glass in a room or hot-house, will raise the temperature within to an extraordinary height. Gen. Pleasonton, who is a great student of the science of Optics, observed the phenomenon first about three years ago in one of his green-houses, which had been covered partly with blue glass, and which, on bright, sunny days, appeared to generate a much higher degree of warmth than the others aside it. Testing the disparity on one occasion with the thermometer, he found the temperature within this green-house to be 110° while without it ranged about 31°. Speculatively ascribing the result to the presence of blue lights, he followed up the theory, and found it amply sustained by additional experiments. In a grapery, covered with alternate layers of blue and clear glass, he found that the temperature, through the day, ranged from 100° to 115°; when outside, at the same hour, it ranged from 32° to 65°.

During the winter (1872), which in Philadelphia was one of rigorous cold, he records that two ladies of his family, with a residence on the northern side of Spruce street, had placed blue colored glass in one of their windows, in which was likewise plain glass; and the result was that when the sun shone on these two colors in the same window, the temperature of the room was raised so much as to render it necessary for them to do without a fire altogether, though it was mid-winter. If, however, they kept up the fire, they were obliged to let down the other windows in order to obtain relief from the excessive warmth. There have been further experiments made in France and Italy, based on these discoveries, all of which, if true, prove the soundness of his inferences. And a German savant asserts that it is a discovery of an influence proceeding from light that is destined to produce the most important results on the comfort and happiness of mankind.

### Houses of Compressed Earth.

A cheap, comfortable, and durable house may be constructed of compressed earth. Get your foundation walls up three feet or more above the surface of the ground so as to be out of the winter's snow. Have your door jambs and window frames all ready, and then you may begin to build up your walls with earth, dry earth, not wet, but just as you dig it up from the inside of your walls to make your cellar. If you wet your earth you will find, that as the wall dries, it will crack, from its parting with the water. But if you use dry earth and ram every inch down

tight, it will make a strong wall, so durable that if it was made when Adam was a little boy, and care taken to keep it dry, it would be standing now, for earth is a thing that does not decay. Well, now I will describe how to proceed with erecting these earth walls. They should be two feet thick at least, consequently the foundation, whether of stone or brick, should be of that thickness. Prepare planks of sufficient length for the walls that are to be built. They should be two inches thick and from one to two feet in width. Two of these planks will be required for each wall, and iron bolts with screws and nuts must be prepared sufficiently long to reach across the foundation wall, say 2 feet 2, and bolt the under and top edges of the planks together at convenient intervals. Thus a trough will be formed by these planks on the top of the foundation wall, which is to be filled up with the dry earth, and every shovelful well pounded down with rammers. When the earth reaches the top of the planks, the nuts are unscrewed, and the bolts knocked out, and the planks are raised in like manner to the top of the wall, the bolts re-adjusted, and so you go on as high as required, all round the building; taking care to build in the door and window frames in their proper places, and in a proper manner. Sills for resting the joists on should also be built in, and the roof should overhang so as to shelter the wall as much as can be. After the house is built, it may have a coat of plaster, or it may be smoothed off and the following waterproofing may be applied with an ordinary whitewasher's brush. Recipe—proportions as follows: 12 ounces of white curd soap dissolved in 1 gallon of water, to be laid on in a boiling state with a brush, so as not to froth or lather. Let it remain 24 hours to become dry and hard. Then dissolve 8 ounces of ground alum in 4 gallons of water to be laid on in a similar manner. This should be done in dry weather. Such walls as these are peculiarly suited to the Canadian climate, as earth is a bad conductor of heat, consequently they are warm in winter and cool in summer.

Some years ago a friend of mine built a row of neat cottages in this manner at Wollington Somerset. He was so satisfied with them that he said he should not think of building with any other material. They were so cheap too in their construction, as under an intelligent foreman unskilled labor was equal to the task.

J. F. W.

### Lime Kilns and Burning.

EDITOR CANADA FARMER: Would you be kind enough to give me, in the columns of the CANADA FARMER, a few hints on the construction and management of a lime kiln?

W. C.

Loch Lomond, N. S.

Select, if possible, the face of a low hill, mound or embankment, which rises say 6 or 8 feet above the level, and in it make a funnel-shaped excavation of from 3 to 4 feet diameter at the bottom, to 12 or 15 feet at the top. Line this cavity with a compact wall of stone or brick, observing to leave in front an opening of 4 or 5 feet in height by about 1½ or 2 feet in width which is to serve the double purpose of a feeding-place and damper. The "eye" or keystone of this opening requires some caution in adjustment. The height of wall is to be regulated by the capacity of the kiln. In filling in the charge prior to burning, the first or lowest layer is of the most importance. It is constructed around the bottom of the kiln and against the sides of the damper, concave below to serve as a fire-place, convex above, somewhat after the manner of an inverted tea-cup, and most securely keyed to sustain the pressure of the superincumbent charge. The concavity or fire-place should be large enough to hold 8 or 10 good-sized sticks of cordwood. Across the damper too, at a height of about a foot from the ground, an iron bar is usually inserted on which the ends of the wood may rest, and under which the ashes may be conveniently scraped away. Having filled in the charge, light your fire and keep it blazing hot until the burning is completed. See that no intervals of cooling are allowed during the process, or they will largely augment the trouble of burning. A kiln of about 200 bushels should be sufficiently calcined in 100 hours, perhaps less; everything depends on the uniformity and intensity of the heat applied. The description just given is that of the cheapest and most ordinary style of "home made" kiln. A method of burning lime without a kiln was published in last year's volume of the CANADA FARMER, page 102.