

Agriculture.

For the Christian Messenger.

POTATO ROT.

By giving the following a place in your valuable paper you will confer a favour, and perhaps lead to experiments on this extensive malady. Having a part of a field, highly manured, very level, and peculiarly adapted to the development of the potato disease, which was planted, about the beginning of June, with various kinds of potatoes. I had one Windsor or Broad bean planted in alternate rows, about ten feet apart, in the rows of potatoes. The beans branched out from five to twenty stalks each, covering a considerable space with their dense foliage. The disease came, and the potato stalks withered away. When digging up the crop I was astonished that on the northern side of the beans, (still green), the potatoes were perfectly sound, while on the southern side they were as uniformly rotten. I, therefore, inferred that the bean stalks had in some way shaded the sun's rays from the crop on the northern side. It appears that after copious rains the foliage of all plants are less able to withstand the influence of the sun's rays, than in dry weather by uniformly wilting as may be noticed by any attentive observer. May not the rain drops act as a lens to concentrate the sun's rays to a focus, and burn the foliage? causing mould and rot on the leaf, and so contaminating the descending sap that produces decay in the tubers? This may be the case especially when combined with wet and heat absorbed in lands composed of a large proportion of animal or vegetable matter. If the potatoes were planted east and west in rows, beans might be planted in alternate rows. If necessarily north and south, a bean and potato might be planted in all the rows, alternately. If the potatoes failed, half a crop of beans would be preferable to no crop at all, and they are valuable food as fodder. Horse beans are excellent food for pigs, horses, and even a cow, in its nature like DuBarry's Ravelenta. Amica is manufactured from the horse-bean, and extensively used in Glasgow and other places at nearly as high a price as wheaten flour.

JAMES THOMSON.

Windsor Nursery, Oct. 7, 1856.

Save your Corn Cobs.

What shall we do with the corn cobs? is a question asked by many. Some persons seem to think them more worthless than anything else on the farm, for we see them scattered in the highway or left to rot by the side of the corn crib. Others consume them with quick and easy disposal, so as to dispose of them with the least trouble and expense. Since the introduction of the corn sheller the cobs are left unbroken, and the cob of some of the large varieties of corn will be found of some value as an article of fuel. A cord of cobs will be worth as much for summer fires as a cord of wood, and they are in many cases preferable, making a quick hot fire which will last as long as a fire is needed at one time. Besides, the ashes made from corn cobs are more valuable than the ashes of any other description of fuel now in use, as they contain a large proportion of alkali. Many persons, still on the stage of busy life, can well remember the time when their mothers used no salaratus but what they obtained by burning a kettle of corn cobs. The best way to dispose of cobs is to lay them by in some dry place near the kitchen stove where the cook can make use of them whenever she needs a fire. The ashes should be carefully secured, as by applying a handful of them to a few feet of ground, where any crop is sown, they will repay the farmer better than so much guano or any of the highly recommended fertilizers.—N. Y. Chron.

Hints to young Farmers.

Consider your calling the most elevated and the most important. Put off no business which might and can be done to-day until to-morrow. As soon as the spring opens and the frost is out of the ground, put your fence in order. Never hire a man to do a piece of work which you can do yourself. Every day has its appropriate duties, attend to them in succession. Keep no more stock than you can possibly keep in good order, and that of the best kind. Never run into debt without a reasonable probability of paying it at the time agreed. When interest or a debt becomes due, pay it. Punctuality is the key to every man's chest.

Science and Art.

The Calliope, or Musical Steam Whistle.

Several years ago, Mr. J. C. Stoddard, a mechanic of Worcester, conceived the idea that the bells, by the vibration of whose thin edges the "steam whistle" is produced, could be so arranged as to render accurately the "diatonic scale" in music; and after experimenting for some time, he succeeded in constructing a series of bells on which the seven notes of the octave could be played by steam.

The desideratum was now to produce a valve sufficiently delicate to correspond with the touch of the performer on the keyboard of an organ.

This has finally been effected, and the inventor has taken out a patent, not only for the application of steam to a series of musical bells, but also for a new delicate "valve" for the admission of the steam into the bells.

The Calliope, then, as now exhibited, consists of a long series of bells, varying in size and length, according to the tone to be produced, and running through four or five octaves.

The steam is admitted to these bells by means of a long series of corresponding tubes, inserted in a small cylinder connected with the boiler. A small wire connects the valve in each tube with a key, i. e. a "finger-board" like that of a piano-forte or organ; and this, in a steamboat, may be placed in the ladies' cabin, while the bells themselves are in a distant part of the boat.

A full chord of eight notes may be struck at once, as upon the organ; and it is needless to say that the effect of such a combination of musical tones is remarkably grand and sublime. Think of a steamer with one of these "mighty musicians" on board, ploughing its way up the Mississippi, and waking those vast solitudes with its trumpet breathings!

Upon the ocean the Calliope can be heard for twenty miles, discoursing the "Star Spangled Banner" and "Hail Columbia" with accuracy. The action of the valves is so nice and perfect that the quickest tunes, as "Fisher's Hornpipe," "Money Musk," and "Mary's Wedding," can be performed with ease, and all the accompanying parts distinctly given.

The "Glencoe," between New York and Albany, has one of these instruments on board, and it is said the boat has doubled the number of passengers by means of it.

The Calliope is capable of being played with a crank as a common hand-organ; and in this form will doubtless take the place of the shrill steam whistle on the railroad; but its greater utility will be, it seems to us, as a "signal" between our steamships on the ocean; and as a diversion to the passengers on their voyages. The consumption of steam by it is said to be quite inconsiderable.—Traveller.

The First Chapter of the Bible and the Last Chapter of Astronomical Science, viewed in conjunction.

"The cosmogony of the world," quoth the renowned Ephraim Jenkinson, "has puzzled philosophers of all ages. Yet philosophers will not be deterred from attempting a solution of the mystery, and if the attempt were always made with modesty, learning, ingenuity and good sense, good would come of it. There can be no question that the difficulties of the first chapter of Genesis will continue to be, until they receive at least a probable explanation, a favourite meat for the infidel to bait his hook with. Astronomers now conclude from the libration of the moon that her shape is not quite spheroidal, but that on this side she bulges into a mountain several miles high, far too high for the atmosphere of life, the other side being proportionately depressed, is it not likely that such was the condition of the Earth also in the beginning? Then one side of the earth would have been a 'great deep' in utter darkness, the other hemisphere would have been 'without form and void,' and always in a 'blinding glare' of light; that is, supposing the earth to have been in exactly the state which the moon is in at present, without diurnal rotation." The explanation of the successive days' creations on this hypothesis would be as follows:—First day. A diurnal revolution given to the earth, and day and night created. Second day. Production of the atmosphere, by some "re-adjustment of the earth's density. Third day. Vast earthquakes, upheaval of present mountain ranges, gathering of waters into their present basins, earth so prepared for vegetable life. Fourth day. The lights in heaven become apparent.

Temperance.

Sons of Temperance.

THE Annual Session of the Grand Division of the Sons of Temperance has been held in the city during the past week.

Delegates from many parts of the country were present and took part in the deliberations. The defeat of the Prohibitory Bill in the Legislature, by the Government declaring that the Railroad could not be built without the revenue to be derived from the Liquor Traffic, was considered one of the greatest fallacies in modern legislation.

The reports of brethren from the parts of the country where the railroad operations are being carried on, shewed that drunkenness is, at least in those parts, alarmingly on the increase.

We have been permitted to make a few extracts, which will be read with interest, from the Report of the Grand Worthy Patriarch, respecting the state of the Order in different parts of the Province. He says:—

"The City of Halifax is almost the only place in the Province in which there is an encouraging increase. The Divisions there are numerically stronger by 77 members than they were at this time last year. Their prosperity is doubtless owing to the zeal and activity of the brethren, their punctuality in attending the weekly meetings, and the numerous public gatherings at which our principles have been expounded, and the co-operation of the friends of Temperance sought. June Rose Division, Hammond's Plains, is also working its way with steady success. There is nothing particular to report respecting the other Divisions in the County of Halifax.

"Passing over to Cape Breton, the following extract of a letter from Brother Bown, of North Sydney, will be read with pleasure:—"Taking the Divisions together, both here and at Sydney, you will find a great increase since last January. There are numbers, not members of the Order, who through the influence of the Sons have become sober men and good members of society. Indeed, it is wonderful to see the influence the Order has had in the country, even among the shipping. Here you scarcely see a sailor on shore drunk, and breaches of the peace are hardly known. The tone of society seems completely changed. Drinking habits are going out of fashion."

"In Colchester and Hants Counties there is a variety of experience. Some of the Divisions are holding their ground bravely; others are sinking into slumber. In one instance the establishment of a groggery where no such nuisance had existed for years seems likely to produce a good effect. Brother George Creed, Junr., speaking of Rechab Division, says, "There seems now to be a brighter prospect. The arch-enemy of our cause has established a station in our midst. Rum has not been sold here for some years previously, and its presence seems to be imbuing the Temperance folk with new spirit. There is quite a backing on of armour among our brethren." Drunkenness is on the increase in Windsor, but it is pleasant to record that Hantsport is still free from the rum-curse."

"Most of the Divisions in King's County maintain their position. Those which have been under my own superintendence, though not large, are doing good in their respective neighbourhoods. Brother Hunt observes:—"The progress of our excellent Order is but slow. Our principles, however, take a firm hold upon the public mind, and hence, while there is a want of encouragement there is no cause for discouragement. The Sons, I am happy to say, are giving their thoughts more decidedly to the old Temperance Societies, and that is doing a good work." The brethren of Canard Division have invoked the aid of the law, and the result has been that a notorious rum-seller has been driven from the field.

"Annapolis and Digby Counties are so favourably situated for the operations of the lawless that a large amount of rum is poured in among them, and the buyers are not few. Some of the Divisions are sickly, and some ready to die; others show symptoms of vigorous health. Brother Whitman, referring to Clements Arch Division, says, "Although small in numbers, I think our Division is mainly the cause of there not being any spirituous liquor sold at this place (Clementsport); and I can safely say there is less drunkenness here than in any other place I have visited in the Province." Brother Nicholls states respecting Royal Division that it is "in a healthy, active, and prosperous condition; but little if any liquor is sold in the village (Hillsburgh), and a drunken man is a rare sight amongst us."

"In Yarmouth and Shelburne Counties the cause, as far as I can gather, is not in a satisfactory state. From Queen's County I have not received much intelligence, except that intemperance prevails greatly in the town of Liverpool, where, though no licenses are granted, liquor in plenty is to be had. Some have drunk themselves to death; others are on the road, and our brethren there "despair of much change" till we get the Maine Law. But "despair" is a word not befitting a Temperance vocabulary, and it cannot but be hoped that the County which boasts a "Hero of Kara," Division will ere long report the repulse of assaults and the beginnings of victories.

"Lunenburg is a great drinking county, and the brethren there have much to contend with; nevertheless, there is a good degree of healthy action in some parts of the County. In the town of Lunenburg, where there are two Divisions, both working well, an attempt has been made to prevent the illegal sale of rum, but without much success, for want of due encouragement from the authorities. In Chester the Order is happily gaining ground."

"In furnishing these particulars I have endeavoured to give, in few words, a fair account of the present state of our Order. I may add, that in several of the Divisions females are admitted as visitors, and that this measure is reported as productive of good effects."

The whole report is a most able document; so also is the Report of the Grand Scribe, both of which we presume will appear in the pages of the Abstinence for November, and will we think encourage the friends of Temperance and humanity. They will shew that the machinery exists in our midst for blotting out the moral pest—Intemperance—from the community. It only requires the combination of all good citizens to shut out, forever, Rum and all its associates from the list of articles of ordinary trade, and to declare it a nuisance, and say that it shall be no longer tolerated.

Liquor Business in the United States.

But few, comparatively, are aware of the extent of this business in this country. But when we look at the gigantic business done, we may well expect some evil results from it, and expect some influence to be exerted upon the country against legislative action to curtail and restrain, and especially to abolish this source of so much crime and misery, as well as income to those who have invested their capital in the business. We have, as has already been found by those who have waged war against this evil, a giant monster to defeat and overthrow, aside from the appetites of those for whom the evil is continued.

The following statistics will give some idea of the influence of rum in our land:

Table with 2 columns: Item and Value. Includes: Number of distilleries in the U. S., 1,217; Capital invested, 8,507,574; Bush. Barley yearly consumed, 3,787,175; Corn, 11,367,761; Rye, 2,143,927; Oats, 56,607; Apples, 526,940; Tons of Hops, 1,994; Hds. Molasses, 5,240; Number hands employed, 6,140; Gallons of ale made, 42,461,920; Whiskey and high wines, 41,364,224; Total bushels of grain, 17,058,490; Gallons of liquor, 90,326,644; Population of U. S., 23,000,000; Total value of grain, \$12,875,913; Cost of hands employed, 2,394,600; Interest on capital, 519,454; Cost of hops and molasses, 279,000; Cost of raw materials, hands, interest on capital, \$15,987,367.

We have about four gallons of liquor for every man, woman and child in the United States, and do we wonder that we have drunkenness? Do we wonder that our elections are often controlled by the liquor interest? Do we wonder at the strong influence against Maine laws?—Baptist Memorial.

The Fireside.

The fireside is a seminary of infinite importance. It is important because it is universal, and because the education it bestows, being woven in with the woof of childhood, gives form and color to the whole texture of life.—There are few who can receive the honors of a college, but all are graduates of the hearth. The learning of the university may fade from the recollection, its classic lore may moulder in the halls of the memory, but the simple lessons of home, enamelled upon the heart of childhood, defy the rust of years, and outlive the maturer but less vivid pictures of after days.

By education men become very easy to lead, but difficult to drive—easy to govern, but impossible to enslave.