

## A DISCIPLE.

[Garth in Times Democrat.]

When quiet twilight softly slips about  
With timid thoughts, that will not face the  
sun,  
To holl' sweet converse while the stars come  
out  
And one by one,  
The daylight cares are hushed and put to  
sleep  
The fair world's brooding bosom, dim and  
still,  
And leaves with tender stir their watches  
keep,  
And night winds thrill,  
I count most dear. If in the lovely lore,  
That thy heart teaches I may grow more  
wise,  
Ah, friend of mine! 'twill add yet one joy  
more  
To Paradise!

## MAKING BEET SUGAR.

The "New Process" as It Will Be Conducted at Lavenham, England.

[London Letter.]

At the factory there will appear great changes readily observable to persons who were familiar with the operations of a dozen years ago. The loads of carrot-shaped roots (minus their green crowns cut off by the growers) will be weighed, but not subjected to any trimming by hand; unless, indeed, a forked and fangy root be dealt with now and then. For, as there will be no rapid rasp grating up the roots into a fine pulp, there is no need for carefully paring off the small rootlets and fibres which used to go away in the drain water—to the clogging and fouling of the brook which flows close beside the factory. And this waterway will not be corrupted and made pestiferous with black char water which used to pour from the charcoal filters, as there will be no such filters.

The beets, cleansed from adhering soil by the mechanical stirrers and brushes revolving in long vats of washers, will be elevated to the cutter—a machine resembling the root-cutter used by a shepherd—which slices the roots into finger-pieces; and these will be sent down a spout or trough which delivers a proper charge in turn into each of a series of circular vessels, placed in a ring form of arrangement for being conveniently charged by the spout as it swings round from the center like a crane jib.

By what is called the "diffusion" process, water of different temperatures at different stages flows continuously through all the vessels in turn, commencing as clear water with each spent charge of beet, and gradually enriching itself with the juice from partly exhausted charges in succession till it issues, as a rich solution of sugar, salts and impurities, from the last vessel in which the maceration of fresh beet is begun. Each of the vessels is emptied in turn of the spent beet, which is carried to the pressing operation, where any sweet sirup remaining is made to exude—the pressed beet, however, still holding enough nutritive materials to be an excellent fattening food for animals. This will be loaded upon carts fetching it away at the price of 6s per ton; that is, half the price formerly paid for the pulp as it came from the bag-presses after the rasp.

The solution from the beet will be boiled with lime, which is termed "defecation," and the lime then precipitated by blowing carbonic-acid gas through the liquid. By the old process there would follow a second defecation, and then the tedious and expensive charcoal filtering. But it has been observed that the mineral earth strontia has the property of being able to seize and enter into combination with sugar solution. Hence the liquor is boiled with strontia under pressure: a yellowish-white sucrose falls as a deposit to the bottom of the vessel; the water, still holding the salts and impurities

though it has parted with the sugar, is run out through the precipitate of sucrose on a screen upon the bottom of the vessel, and this material is then treated with carbonic acid in water, which breaks it up, separates and recovers the strontia, and leaves the pure sugar in solution to be concentrated by vacuum pan and crystallized in the usual manner.

The greatest gain of the new process, however, is that, whereas by the old crystallization process the manufacturer lost some 20 per cent. of the saccharine matter of the beet juice, which from contamination of salts could not be crystallized and went away in the molasses—a product of low value—the strontia perfectly clears all the sugar from these impurities in the way of crystallization, and extracts up to 95 or more per cent. of the sugar contained in the beet juice.

## Dangers in the House.

[Pall Mall Gazette.]

More "dangers in the home." To paper one's walls we knew already is simply to court death, for the papers may contain arsenic, and to detect its presence requires more knowledge of chemistry than the common man can possibly aspire to. Dustbins, too, and dust-cellers have long ago been banished from all "sanitary" houses, or where these dustbins are there are the germs of disease gathered together. A hundred other dangers were pointed out the other day in a paper read at the Larkes museum. Carpets are a favorite lurking place of the enemy. Curtains and blinds are an abomination for they "choke the house by pressing on its windpipe." But do not suppose, on the other hand, that you are safe by just opening your windows; for although fresh air is all very well, even "the air should be cleansed, if possible." The crowning stroke was reserved for Sir Robert Lawlinson, who tells us—cheerful advise this, with the thermometer where it is—to avoid storing coals, for they are "liable to ferment and to give off gases inurious to health."

## C M., Hogs, and Crows.

[San Francisco Bulletin.]

Clams are very abundant at the mouth of the Frazer river, Washington territory. When the tide is out the hogs that are pastured in the adjoining woods rush down the bank and begin rooting in the sand for the luscious bivalves. No sooner are the hogs down the bank than crows light upon their shoulders, and no sooner are the clams uncovered than the birds snatch them and fly away. They get over a rock, and dropping tail-claws, immediately dart down after them. If the shells are not broken the first time, they ascend higher and let them fall again.

## Kerosene in Cold Weather.

[Boston Budget.]

An oil inspector offers this explanation of why kerosene oil lamps do not give as good light in cold weather as at other times: "Wisconsin test primo light oils will thicken with the cold at temperatures varying from zero to 20 degrees above. Freezing separates the particles of paraffine from the remainder of the oil. They are attracted by the wick and fill the pores, destroying its capillary power and increasing its tendency to incrust and char in burning. The best kerosene oils for burning in cold weather are water white, colorless oils of light gravity. These cost from 2 to 3 cents per gallon more."

## A Model of the Bastille.

[Exchange.]

One of the most interesting relics possessed by the late Comte A. de Lieville was an accurate model of the Bastille, carved out of one of the stones of that edifice. He had 1,000 locks and papers, and coins, medals, arms, etc., innumerable, connected with that revolution and with those of 1830, 1848 and 1870.

The Spanish Government has prohibited the inoculation of people with cholera virus, pending the decision of the board of health.

Iroquois beat Cardinal at lacrosse on Saturday three games to two. The game was played on the ground of the latter.

Prof. Odium, an expert swimmer, jumped from Brooklyn bridge, and only lived a few minutes after being taken from the water.

A Montreal woman has recovered damages against her daughter for slander.

## Porter's Fleet in Transit.

[Ex-Confederate Gen. Maury.]

Next day I received orders to go to command the department of East Tennessee. Gen. Stephenson asked me to remain a day or two, because Grant was making a move. That night my pickets, soon after midnight, began firing. All of my staff were at a ball given by Col. Watts and Maj. Carrill, commissioners for exchange of prisoners. All the fashion and beauty of the city were there, and all the officers who were so fortunate as to be invited and who enjoyed such an occasion. Since the "sound of revelry by night" in Belgium's capital, no such startling call was made as Porter's fleet occasioned that night. All of the young officers (and some of the old) ran off to their commands. The girls fled in panic in their thin robes and slippers along the muddy roads to their several nests. It was long past midnight when the thirteen vessels, including the transports, came swinging around the point. Our bonfires promptly lighted up the whole river front and every line and every rivet of every ship could be plainly seen as they moved bravely down under the fire of all our batteries. We sunk three transports. The others got safely by and joined Farragut with the Hartford and Albatross.

Then the Confederacy was sundered and there was no more sense in continuing to keep Vicksburg fortified than there would be to-day to fortify it to guard the Mississippi river.

## Japanese Cookery.

[Tokio Letter in Chicago Times.]

Upon arising in the morning you may wish to invade the culinary department, but you would better follow the Scriptural injunction and "eat such things as are set before you." Not that things are necessarily uncleanly, but there is a general mixture of cookery and smells, which only the well-filled stomach enjoys. Tell them to cook you chicken; you hear a squawking in the house, and in just five minutes the lamented bird is before you, all cooked.

It is done in this wise: Upon a charcoal fire are placed thin copper pans, which are almost instantly heated to a white heat. Oil is dropped in, the chicken on top, and all is over.

The natives eat little flesh. Only since the advent of foreigners have they learned to eat it at all. Their sustenance is drawn mostly from rice, sweet potatoes, fish, and a few vegetables, such as a great radish called daikan. They also eat millet, and, strange to say, buckwheat is made into soup. The lesser articles are barley, wheat, green corn, oranges, grapes, figs, persimmons, etc. There is a soup made of rice, small pieces of dough, a little seaweed, some snails, and sharks' fins. You may pass it by, preferring boarding-house hash, or anything less complex. One great drawback to foreign travel in Japan is the difficulty of getting suitable food; but with a good digestive apparatus you will be able to pull through.

## A New Disease.

Lawn tennis is said to have brought in, like roller skating, a new and peculiar disease. It is a rupture of a muscle in the arm. The ailment has already been dignified by a name.

The Scott Act contest in Kingston and Frontenac, on Thursday last, resulted in the defeat of the Act by a majority of 53 in the city, and a majority of 516 for the Act in the county. How is it that the cities go so strongly against this high moral reform. Is it a want of morals or money?

The body of Prof. Odium, who met his death last week by leaping from the Brooklyn bridge, has been thoroughly examined and the fact brought to light that every important internal organ was ruptured, by the force of striking the water.

## How Young Lawyers Are Led into Disreputable Practice.

[Chicago Herald.]

"The majority of young lawyers in a large city have to wait for years for their first brief," said a member of the profession whose reputation assures him a large annual income, and whose legal standing is unquestioned. "If they have influential connections some collection or some commercial business might be thrown in their way, but if these connections fail them their lot is, indeed, a sorry one. Many a bright young man has lost energy and hope for brighter prospect waiting in his dingy office for some legitimate case to turn up. His little savings are gone up in books, office rent and the necessities of life; he has no means in view, no friends, no briefs. Finally he drops out of the list and clerks for his more successful brethren or does something else than practice law to earn an honest living.

But only too often he gives way to the tempter. He becomes the teacher of sharks in human disguise, showing them how they may squeeze the very life-blood out of their victims—skin them alive, as the saying goes—or, worse still, he associates with criminals and becomes himself a criminal. Naturally sharp, his observation becomes sharper by disreputable practice. Always bordering on the brink that would precipitate the unwary, he shrewdly evades the law, trusting to the many technicalities which, unfortunately, encumber the practice of the profession and give rise to the phrase of 'the glorious uncertainty of the law.' Some are quite successful financially in this direction, but they have lost caste with the honorable majority of the profession."

The desire to be mentioned, to become acquainted, to "have their names in the papers," leads many a promising young lawyer to take up criminal cases of a sort that had better be left severely alone. Criminal cases in general—so all the respectable practitioners with whom the reporter conversed, said—are not the best means to build up a lawyer's practice, and some criminal cases are positively inurious to a fair professional reputation. Here, then, is the dividing line between the reputable lawyer and the police court shyster—a venomous, racially individual that abounds in every large city.

These malignant excrecences of an honorable profession hang around the police courts like harpies waiting for prey. The disreputable female, the professional bummer, the veriest gutter-snipe, the lagging rowdy, the drunken sot are alike their customers, and fees range from 50 cents to whatever amount of lucre this malicious clientele can scrape together. There are cases on record where the shyster has exchanged his seely coat or torn hat for the better articles of his client in cases where no cash could be obtained. As a rule the swaggering, r.m.-soaked shyster is a power in ward politics, and not seldom he has an adherent or a county commissioner "dead to rights" for political services rendered to enforce his strange expounding of the law of the land before the magistrate.