

almost gone, but thirst may be excessive. When at length death occurs or the patient is slaughtered, a post mortem often reveals that the stomach as well as the intestines was involved. The fourth stomach has its lining membrane reddened, with a gelatinous effusion into its substance and into the sub-mucous tissue. The small intestines are sometimes somewhat similarly affected, but not infrequently present, only a slight congestion of the mucous membrane. The large intestines are usually the main seat of the disorder. They show highly congested spots and congestive streaking, giving them a bluish color, ulcerations are also generally present, penetrating the mucous coat more or less deeply. The contents are of an offensive smell and tinged with blood.

TREATMENT is often very unsatisfactory, which, perhaps, is due to the fact that the diseased mucous membrane of the intestines is in such a state that absorption of medicines cannot readily take place. Treatment should be largely that recommended for acute diarrhoea except that in no case should a purgative or laxative be administered even in the early stages. Large doses of opium as two drams of powdered opium, or two oz. of the tincture (laudanum) with four drams each of catechu and chalk should be given three or four times daily. It is good practice to give astringent injections per rectum as alum water one oz. to a gallon of warm water. The patient's strength must be kept up and the heart's action stimulated by the administration of nutrients and stimulants, as a quart of boiled flaxseed and two oz. sweet spirits of nitre or one-half pint of whisky every few hours. Careful nursing is absolutely necessary, though some cases are so tedious that the attendant is liable to become discouraged and inclined to allow matters to take their own course. The food must be of first-class quality, dry and nutritious. While a large percentage of cases prove fatal even under the most energetic treatment, cases of recovery are not rare, hence efforts to cure should always be adopted. WHIP.

Give the Ewes a Chance.

Those sheep breeders who would have a large crop of lambs in 1916 should pay some attention to the care of the ewes during the breeding season which is now fast approaching. There is a practice, well known to sheepmen, called "flushing" the ewes, which means nothing more nor less than feeding up a little just before the ram is turned with the flock. After the lambs have been weaned ewes are very often not in the best condition. It is well to have them gaining in flesh during the breeding season, and to accomplish this lambs should be weaned early and the ewes put on fresh pasture for a few weeks before being bred. Those who have tried this system claim that a very pronounced increase in the lamb crop has resulted. Some go so far as to feed considerable grain to the ewes during this "feeding-up" time between weaning the lambs and breeding for next year's lamb crop. But this year pasture is so abundant on most farms that very little grain should be necessary to put the sheep in first-class condition. Those who have not already weaned their lambs should do so at once, in fact, they should have been weaned some time ago, and after weaning give the ewes the best pasture on the farm.

FARM.

Man and Science.

By Peter McArthur.

A few nights ago I was travelling on a fast express when we ran head first into one of the most violent thunderstorms I have seen this season. The lightning kept up such a blaze that the landscape could be seen from the windows almost all the time. The crashing of the thunder could be heard above the noise of the train, and the rain poured down as if it were coming at once. It was certainly such a night

"As ne'er poor sinner was abroad in."

I doubt, if even the wild ducks could travel in such weather, and I am sure that everything that could find shelter was glad to be in it. And yet several scores of people continued on their travels as comfortably as if the sun were shining and only spring zephyrs were blowing. It gave me a glow of pride in the achievements of man to reflect that we could go about our business in spite of the storm. Even though we could not control the elements we could ignore them in their most boisterous mood and that served our purpose equally well. By a proper use of his reason man is able to take a much more important place in the scheme of things than he was given, and there seems to be no limit to the distance he can go in the way of subduing forces to his need. It was a very gratifying theme for

reflection, and I allowed myself to enjoy it until we had entirely passed through the storm.

If I had stopped thinking I could have felt proud of myself as a man, but I suddenly remembered the part that railroads are playing in the horrible war. Without strategic railroads to carry the soldiers, food and munitions the conflict on its present hideous scale would have been impossible. The railroads have become one of the most monstrous forces of the war. This led to the reflection that all the other great achievements of man, such as the telephone, wireless telegraphy, steam power, etc., are now important aids to the great work of destruction. Without them the vast armies could not have been controlled or managed. The things that were the glory of times of peace have added new horrors to war. It was all very disconcerting, and as I meditated on this phase of the question I remembered an interview that was given out by Wu Ting Fang when he was the Chinese Ambassador at Washington some years ago. As he was the most genial, engaging and witty member of the diplomatic corps he was a great favorite with the newspaper correspondents, and whenever they were short of copy he was always ready and willing to give them a column or two of good material. On the occasion which I have in mind he gave out an interview in which he heaped gentle oriental ridicule on the boasted progress of the Western world. He asserted that we had achieved nothing in the way of invention that China had not had thousands of years ago. He claimed that they had automobiles, wireless telegraphy and all that sort of thing, but had wisely discarded them as being unfit for the use of civilized people. They induced men to live at a feverish speed that threatened to destroy the race, so the inventive Chinese wisely gave up their inventions and learned to live as human beings should. When I

of science were entirely under the control of the priesthood, and were guarded by all the oaths and penalties of a terrible secret society. The priests would not allow the common people to practice either the arts or sciences except under the most rigid control for fear that they might discover the secrets of Nature by which the priesthood made themselves all-powerful. Like all of the ancient priesthoods they had their esoteric as well as their exoteric teaching, and only those who had been tried by a long novitiate were allowed to learn the mysteries by which they wrought the marvels that seemed miracles to the ignorant people. By keeping these secrets guarded the Egyptian priesthood had kept themselves in control for thousands of years until they degenerated and the secrets were lost. I remember that I read all this with much interest as if it were an enthralling romance, but the part that science is now playing in war almost leads me to believe that the supposed crank had an inkling of the truth. Mankind must reach a much higher plane before all men can be intrusted with the powers given by scientific skill. The hopeful thing in our case is that we have learned so thoroughly that science is the best servant man ever had that in order to keep it for use of all future generations we shall properly guard against its abuse. Assuredly we shall have many problems besides those of politics and finance to deal with as soon as the world is ready to resume its peaceful avocations.

HORTICULTURE.

Is Fall Planting Safe and Practicable?

With each recurring autumn comes the question of fall versus spring planting of fruit trees and berries. The claims made for one system are somewhat refuted by the arguments in favor of the other yet taking everything into consideration, on many farms it is more convenient to plant in the fall than in the spring.

This practice of fall planting has been looked upon with considerable discredit yet the experiments carried on in connection with this work and the nature of many trees themselves lead many to believe that it is much a matter of convenience for when properly set they do almost as well in one season as the other.

In the case of apples the early growing character of the tree does not influence the time of planting so much as with some other kinds of fruit. Where the tree or bush

starts to grow early in the spring it is very much in its favor to be planted in the fall provided the winter weather is not exceedingly inclement. With cherries and with currants and gooseberries growth starts early in the spring and when the plant is moved after the early buds have swollen and commenced to burst the shock to the tree may adversely influence its growth for some time. Setting aside the question of fall versus spring planting for apples, pears, plums and peaches, it may be said that fall planting for sweet cherries, currants and gooseberries is to be unhesitatingly recommended under normal conditions. At the Vineland Experiment Station the Director, F. M. Clement, has the following to say:—

Of late years because of the heavy loss in spring-planted cherries a few of our authorities are recommending fall planting. The idea is gaining ground and from my own observations and experience I feel quite safe in saying that with the proper soil condition the percentage lost from fall planting will be less than from spring planting, but the cherry is exceptional amongst fruit in that growth starts very early in the spring and once the buds have swollen or burst it is practically impossible to get a large percentage to grow. This is particularly true of the sweet cherry. Other fruits do not start so quickly and then, even, though a few buds are swollen or burst the loss with careful planting is comparatively small. With fall-planted trees there is a tendency to become uprooted or to dry out during the cold and windy weather of the fall and winter. Trees planted at this season should be



Countess 16th.

First-prize senior yearling Shorthorn heifer and junior champion female at the Canadian National Exhibition, Toronto, 1915. Exhibited by A. F. & G. Auld, Guelph, Ont.

read that interview I regarded it as a little masterpiece of satire, but to-day I am inclined to think of it as the embodiment of much wisdom. Mankind lacks the necessary self-control to handle great forces with discretion. When crazed by ambition or greed he does not hesitate to use things that are of incalculable use to us in our peaceful avocations to wage war in forms more dreadful than were possible to barbarians. Possibly when this war is over we may not only want to disarm the world but to stamp out the inventive spirit that can be put to such baleful uses. At least we should be wise enough to see to it that progress shall be real progress and not something that can be used to promote war. The things that man can do to make life more tolerable are without number but we may have to appoint an international board of control to decide whether new scientific developments can be kept on an entirely peaceful basis and to avoid all that might be used to make war.

Remembering Wu Ting Fang's interview led me to recall some strange letters that appeared in the New York Sun about the same time. They were written by a man who had devoted himself to the study of the ancient civilization of Egypt. He was regarded as a crank, and I suspect that the editor published his letters more for the amusement of scholarly readers than for any other purpose. This man asserted like the Chinese Ambassador that all our scientific discoveries had been known to the ancients. He claimed, however, that in Egypt the discoveries