

carried on the boots of the attendant or in the food and water or on the utensils soon causes a development of the disease notwithstanding the exercising of all precautions.

It has not been proven that infection is transmitted through the egg, and Dr. Higgins has no reason for believing that it is. The fact that infection did not appear in isolated poults hatched artificially and kept away from the poultry flock of the farm fairly well proves that it is not carried in the egg. The eggs from which these poults were hatched were obtained from various sources, some of them undoubtedly coming from infected flocks. However, this question of whether or not the disease is carried in the egg is still an open one.

In hatching the eggs they are incubated artificially and the poults, after hatching are transferred to the hover in the colony house, the floor of which has been sanded. A board is nailed across the corner where the hover is situated, for a day or two so that the poults will not wander off and get chilled. Poults are not fed for three days. At the end of this period they are fed on a soft-mash diet of bread crumbs, cracked wheat, cracked corn, oatmeal, etc., mixed to a sticky mass with milk and having some chopped onion tops, lettuce, clover, alfalfa, lamb's quarters, or similar green feeds mixed with it. At first they are fed five times daily. Fresh water, sour milk, and a dish of fine grit are also provided. Beel scraps may be added to the mash after a few days. Dr. Higgins believes that it is best to keep the poults on a sanded floor for about two weeks, after which they may be allowed out of the colony house where it is safer to have them in a covered run to keep off crows and hawks. After a few weeks feeding was cut down to three times a day, and at the second month a hopper of mixed grain, wheat, cracked wheat, cracked corn, etc., may be placed in the colony house and the feeding reduced to twice a day. At this time the poults are considered large enough to be let out of the covered runs and may be allowed to roam about the black-head-free yard or plot in which they are kept. Mash feeding is then stopped and coarse grit substituted for the fine grit. Shavings, chaff, or straw may now be used on the floor of the house.

Dr. Higgins is not prepared to say that black-head will not occur where this system is used and asks that others throughout the country try it out. Birds, insects, and other uncontrollable factors may play a part in the dissemination of the disease, but of this the Dominion Pathologist could not say. Any house which has housed infected birds should be thoroughly cleaned out, have all refuse burned and be thoroughly disinfected with a 5 per cent. solution of crude carbolic acid or some other coal tar product.

## FARM BULLETIN.

### A School Fall Fair.

What is the meaning of 234 School Fall Fairs being held throughout Ontario this fall? Schools numbering 2,291 and 48,386 pupils are taking part this season. Does that mean that each one of those many thousands of children has lost one day's tuition at school where the Three R's are being taught so diligently? These children have grown 57,243 plots of grain or vegetables, and have received 6,863 settings of eggs from an approved breed of poultry. Perhaps they should have been pulling weeds out of their father's corn or "minding" the cattle in some unfenced clover field. However, if they all enjoy such a delightful day at their own Fair as we were permitted to witness at Appin, Ont., on September 30, no individual parent or Department of Government should deprive them of such real entertainment and education. Not only did the children wholeheartedly indulge in the competition and pastimes that were staged there but the parents were as interested and excited over the tug of war, which resulted in a brilliant victory for School Section No. 6 of Ekfrid Township over neighboring schools, as they would over a Federal election which might decide an issue between Free Trade and Protection. This was as it should be. The children displayed great endurance, determination and, best of all, team-work, which their parents approved of, and if these young fellows would practice similar team-work through life and back it up with the determination they put into the struggle on that day great things could be accomplished for agriculture in the days to come.

These Fairs which are officially known as School Fall Fairs are patronized by a number of schools in a township or district, and they are usually so selected as to be near the village or place where the fair will be held. Each school from among its pupils elects a director and these directors from the various schools assemble and appoint from among their own numbers the officers after the manner of an Agricultural Society. The president of the School Fall Fair Association which body was in part responsible for

the success of the event held at Appin, mounted the rostrum and in a cool, unperturbed manner delivered a patriotic address on "The Cause of the War." In five minutes he had placed the blame at the door of Germany and Austria-Hungary leaving no uncertainty in the minds of his hearers. The adults of the 500 or 600 people present were pleased and amazed at the coolness possessed by this young boy only 13 or 14 years of age. However, that is the aim of the Fair Association to cultivate executive ability and prepare the boys and girls to stand before their equals undismayed and in possession of their thoughts and intellect. In fact self-help and initiative on the part of the children is fostered throughout. Parents can help most by encouraging the child to strive and win. They can hinder most by assuming all the responsibility themselves, preparing exhibits and entering them in the child's name in order to secure the prize which may appear large to the child but is only a paltry amount to the parent. On one occasion last year the parent of one pupil was seen to pocket the money his child had ostensibly earned as a prize and walk home with it. Perhaps the boy had a hole in his pocket, but from all appearances the father had an "itchy palm." At the fair we were privileged to attend on September 30 the exhibitor who won a prize was given an order for the amount he had won, and to the order was attached a ribbon to denote whether it was a first, a second or a third, and so on. The successful exhibitor retained his ribbon but nearby on the Fair Grounds was a bank at which sat the Secretary of the Association, a young school girl, and two assistants. The order was taken to this improvised bank. The winner endorsed his order and drew his money. The very act of endorsing and cashing the order was an education in itself. Very few children are acquainted with the most elementary rules of banking and many adults could profit by more familiarity with them. At one Fair held in Middlesex County this fall fully 80 per cent. of the children who won prizes wrote their names at once across the back of the order without being told to do so by those at the Fair's bank. This acquired information came presumably through an acquaintance with such forms of collateral and presented a striking difference to the attitude of the majority of pupils who have been handed these orders at other Fairs. Education is the key note throughout the whole system, education acquired through doing.

The exhibits included grains, fruits, vegetables, potatoes, corn, mounted weeds, weed seeds, fancy work, cooking and other lines upon which the pupils might work to their profit. Colts and calves are often shown at these events, and at some a judging competition is indulged in to test the ability of the boys along live-stock lines. Some of the fruit at the Appin School Fair was excellent, other entries bore mute evidence to the fact that the children had not taken pains with them. They appeared very much as though they had been shaken from the trees and gathered up with indifferent care. These children should be taught at home to select apples without scab or worm holes, well-colored and above all to handle them carefully. The prizes were placed where these features just enumerated were emphasized and the children will probably remember it at the next fair. One class included corn for silage purposes. Several stalks had been cut near the ground with the ears of corn left on them. They were tied together and put on exhibition. In judging these it was necessary to take into consideration the quantity of leaf and stalk, maturity of the corn, and the quality of the corn as it appeared on the cob. The ears of corn on the winning sheaf gave evidence of having been grown from selected seed. Only where the corn was selected for seed from cobs that were well filled with corn, having straight rows and deep kernels, could such silage corn be grown. The roots and vegetables would surpass similar exhibits at some of the Agricultural Society Fall Fairs which we have seen in the past. Some of the large, smooth pumpkins on exhibition would require two of their youthful exhibitors to lift them. The mangels, cabbage and potatoes were good indeed.

While these 600 or 700 entries were being judged in the tents the juvenile exhibitors were themselves competing in sports outside. A long rope enclosed a track wherein all kinds of sporting events were staged and the successful ones were heartily applauded.

Another feature of the day's program was a school parade in which the children of seven school sections took part. Flags and banners waved freely about, some being borne by boys on ponies after the manner of a crusader in days when riding horseback into battle was less precarious than under the more modern methods of war.

School Fall Fairs are usually organized and supervised by the District Representatives in the various counties of Ontario. I. B. Whale, District Representative for Middlesex County was re-

sponsible for the event we have just described, but that is not the only one to be held in the county he serves. The organization of the county in this regard includes nine fairs. Last spring 1,550 applications were received at the Department's office for seeds from which the pupils would grow plots of grain or vegetables. In addition to this 325 "war plots" were cared for by the pupils of the schools. Two hundred and twenty-five children received settings of eggs from which they grew chickens and showed them at their Fairs.

We have very briefly described one Fair and one county's organization in this regard; yet we must remember that in all 234 similar events are planned for this season, and in them nearly 50,000 children are interested. It is the parent's duty to encourage the children; not to do their little tasks for them. The teacher can also assist to a marked extent by countenancing and approving of their efforts. The main point in regard to these Fairs that parents should grasp is that the District Representative wishes to aid the pupils by allowing them to do something themselves and thus develop powers of initiative, thought and executive ability. The School Fall Fair system will mean much to the coming generation if parents and teachers will grasp the significance of the movement and give it their support.

### Fredericton Had a Good Exhibition.

With fine weather, better transportation facilities than ever before, favorable crop conditions, and general prosperity among the people, the Exhibition at Fredericton assembled a fine class of exhibits and an overwhelming program of side-show amusements, and attracted a larger attendance of visitors than ever before in its history. It must not be considered from this that the people who originated, managed, contributed to and patronized this Show were unmindful of the Empire crisis, the one great absorbing theme of all loyal Canadians. The Minister of Marine, who formally opened the Exhibition on the evening of Sept. 18, spoke to the friends of his boyhood days and their sons and daughters of our duty to the state in sending men and money, making one of the most compelling appeals yet heard from a New Brunswick platform. A recruiting tent was established on the grounds, both inside and outside the gates were many successful plans and devices for raising money for the Patriotic and Red Cross Funds, and for a grand finale on the closing evening, the homecoming of the sorely wounded though happily convalescent commander of the Tenth Battalion at Festubert, Major Percy A. Guthrie, was celebrated by the assembled thousands on the grounds.

Speaking in general terms the agricultural and live-stock features of the Show were exceptionally good. The apple show for the time of year was the best ever assembled in the Province, and the immense Union Jack surrounded with a wreath of maple leaves all done in apples with the inscription also in apples "CANADA WILL NEVER LET THE OLD FLAG FALL" was one of the most striking and artistic special fruit exhibits ever made at any fruit show, and reflects great credit on the good work of the Provincial Department of Agriculture under the direction of the Provincial Horticulturist, A. G. Turney and his staff. Though early in the season the glorious coloring of the whole apple exhibit clearly demonstrated that New Brunswick may be truly called "The land of the Big Red Apple."

Grain and roots were never shown in better sample nor in larger display than this year at Fredericton and the Dominion Experimental Farm System from the Fredericton Experimental Station gave a finishing touch to the Agricultural and Horticultural hall with a table and wall display sixty feet in length, covering not only some of the production of the Station farm but also models of many appliances such as poultry houses, barn and stable construction, apiary and horticultural models and tools combined with succinct information on wall cards and leaflets that attracted much attention. One section was devoted to specimens of potato and other plant diseases, with an expert from the Botanical Division in constant attendance to discuss this important matter with interested visitors.

Dairy products were of superior excellence and tastefully displayed. In cheese, this year, New Brunswick, in competition with P. E. Island, captured the highest awards and the winning butter exhibits scored up well above the 90 mark under severe grading. A working dairy, conducted by the Provincial Agricultural Department, daily demonstrated the making of butter and cream cheese and was a source of continual interest.

The apiary and its possibilities in New Brunswick were brought before the public, not only by the best honey display ever assembled in Eastern Canada, but also by daily demonstrations in the care and manipulation of bees by the Provincial Department's expert, H. B. Durost.

The N. B. Women's Institute conducted a large