

## Commission of Conservation CANADA

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CONSERVATION is published the first of each month. Its object is the dissemination of information relative to the natural resources of Canada, their development and proper conservation, and the publication of timely articles on town-planning and public health.

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### CANADA AND THE U.S.

The conclusion of a treaty between Canada and the United States to ensure adequate protection of the Pacific salmon fisheries affords another instance of the common-sense "get together" policy which has been developing rapidly in recent years. The formation of the International Joint Commission to secure proper administration and use of boundary waters was hailed as a splendid achievement. More recently community interest again asserted itself when Canada and the United States took concerted measures to protect and conserve the migratory bird life of North America. Now we have similar steps with a view to rehabilitating the salmon fisheries which have been such a productive asset to British Columbia and the state of Washington.

In these and other cases Canada and the United States are building up a system of practical co-operation in the protection of mutual interests. As new occasions for parallel action arise, the difficulties should prove easier of solution in the light of the successes already attained.—O.M.

### THE NEED FOR THRIFT

Saving is not always looked upon as a saving grace. If it were, there would not be over five per cent of the inhabitants of the United States and probably an equally large percentage of Canadians who are dependent upon public charity. During the past five years practically all commodity prices have risen steadily yet vast sums in the aggregate are now being spent for goods that the purchasers could very well do without. The production of luxuries requires the labour of thousands of men and the use of capital and materials that could be turned to better account in producing and distributing necessities. It is surely obvious that such needless expenditures influence in a marked degree the trend of prices in general.

No right-thinking nation or individual desires to become a pauper, but to avoid such a fate thrift is a prime essential. At no other time in the history of Canada has thriftiness been more imperative. At no other time has prodigality been so much the rule. It may be only a reaction following the

enforced frugality of the later war years. It may be due to the surplus currency which war industries brought into being. But in any case, the general result is baneful and tends toward pauperism. If the discount on Canadian currency abroad is to be wiped out and the prices of necessities reduced, national and personal thrift is a precept which must be put into practice.—A.D.

### KEEP IMPLEMENTS UNDER COVER

If one travels through the country at the present time, the haying and harvesting machinery on many farms may be seen standing in the field where last used. It may have been drawn out into the lane somewhere or may even be at the barn but not inside it. In the Prairie Provinces there seems to be a sort of reckless abandon regarding the use of machinery. When a binder breaks down it is often drawn off to one side of the field and forsaken when it could be easily repaired and made to serve for a season or two longer.

The prices of all kinds of farm implements have gone up and it is poor business to neglect the machinery by leaving it exposed to the weather. The wooden parts soon rot away and the metal parts rust out. It takes longer also to get a rusty implement into working order again.

It is frequently stated that the farmer is and must be to-day more of a business man than formerly. Men in other lines of business where machinery is employed see that it is oiled and properly cared for in order to keep down production costs. The farmer should do the same. When he pays the price that he has to pay to-day for machinery he should take good care of it. Cost of production can be reduced in this way, which means increased profits. Try it.—F.C.N.

### GOOD PLOUGHING

Ploughing matches in years gone by were common and very interesting events. They became less popular as two-furrow and power ploughs came into use, until ploughing threatened to become a decadent art. The aim seemed to be to plough the greatest possible area regardless of how the work was performed. Efforts are now being made to revive interest in better ploughing. Junior Farmers' competitions and local matches are being held in many places and an Interprovincial Ploughing Match and Tractor and Machinery Demonstration is being held at Ottawa on October 14th, 15th and 16th. Classes are open to boys, young men and mature ploughmen. This will be an educational event, intended to stimulate interest in better ploughing and better farming. Good ploughing nearly always means better farming throughout. Attention should and can be paid to the quality as well as to the quantity of the work done.—F.C.N.

### CO-OPERATION IN RESEARCH

In his recent presidential address before the American Institute of Electrical Engineers, Mr. C. A. Adams touched on a subject which is of particular interest in Canada, namely, co-operation in industrial research. Much research work in this country has to be on a comparatively small scale and, to derive the full benefit from these efforts, co-operation is imperative.

In considering the advantage of co-operative research, Mr. Adams observes that "few individual corporations except the very large ones can afford either a suitable research laboratory or competent men to conduct the work. The result is that most of the research work is superficial and much of it misleading. The total cost is many times greater than a comprehensive co-operative research led by the foremost experts in the particular field. Moreover, some of the most vital and fundamental researches are either beyond the capacity of even the largest corporation laboratories or have to be postponed for those offering more chance of immediate returns. Thorough-going co-operation in industrial research would mean not only a reduction of the cost of research to a small fraction of its present figure, a much more rapid industrial development of the country as a whole and a material increase in the productivity of labor, but also an increase in the profits of every intelligent party to the co-operation."

### CONSTRUCTION COST REDUCED

Examples of the economic advantages of using electricity are daily brought to notice, and are of special interest in Canada, where approximately 85 per cent of the electric power is derived from water-power and is, therefore, usually available at low rates.

The saving effected by electric operation in construction work is demonstrated in a recent article in "The Engineering News-Record." The plant referred to is for the construction of a nine-span concrete bridge in Ohio. Electric energy is supplied to some 13 motors varying in size from five horse-power to sixty-five horse-power. These are used for such machines as the saw-mill, belt conveyor, concrete mixers, derricks, pumps, pile driver, cable-way and concrete hoist towers. The cable-way is equipped with a sixty-five horse-power motor, the conveyor with a fifteen horse-power motor, while a mixer one cubic yard capacity has a twenty horse-power motor. In determining the reduction in power costs by using electricity, it is stated that the work can be carried out with an average power bill of \$450 monthly, while the single boiler plant which is to be used for steam hammer costs \$10 per day. If steam were used throughout, separate plants would be required for all machines, owing to their wide separation, and it is estimated that each would cost as much as the steam-hammer operations.—L.G.D.

### "DELILAH"

#### A True Story for the Boys and Girls

Delilah was one of a family of four wild ducklings. She was hatched, however, by a domestic hen who acted as her foster-mother. Her place of birth was on the farm of Jack Miner, at Kingsville, Essex Co., Ont.

Delilah's sisters were Polly, Susan and Helen. They were wild enough little creatures at first, but soon learned to eat custard and were so tame that a tap on a tin pan would bring them all running up for food.

Now, Mr. Miner had often been asked the question, "Do birds return to their homes?" He felt sure they did, but he had no proof. Here was a fine chance to make an experiment. So he marked each of these four ducks with an aluminum tag with the words, "Box 48, Kingsville, Ont."

They migrated on or about December 10, 1912. Helen got shot at Lake St. Clair. On March 14, 1913, Polly came home, on March 18, Delilah returned, and on March 30 Susan appeared, though wounded in the wing and foot. So the question as to the return of birds was answered.

In the autumn of 1913, they migrated again, and in the spring of 1914, back came Polly and Delilah and brought their mates with them too. The young drakes were shy at first, but the two ducks coaxed them down. They raised families that year, and, in the autumn, away they went again.

In the spring of 1915, Delilah arrived on March 13 and Polly three days later. A shot had grazed across her beak and cut the side off, leaving it hanging. She just stood around with her mouth open. Jack Miner gave her custard and porridge and, in two days, he had her in his hands. In about a week or so, he took both ducks to a photographer, stood them on a table and got a picture of them.

Notice how birds know their enemies and their friends. These ducks had been shying around trying to keep clear of people lying in ambush for them, and now they were entering out of a man's hands. These creatures are not so silly as we are apt to think them.

Polly stayed the winter of 1915-16 on Mr. Miner's place, but in the spring of 1916 she was shot. Delilah, however, migrated regularly every autumn and returned the following spring, returning thus six times in all.

During the six seasons, she has raised five families, two of eight, two of nine, and one of twelve—forty-six ducklings in six years.

This shows that, if we protect the mother birds, we need have no fear of the extermination of our wild life. But it also shows what fearful destruction can be wrought by indiscriminate shooting, especially in the spring.

Remember that, though shooting may give you a little pleasure, it is well to limit your bag that, in future years, the birds may not have disappeared.