

fond of Indian corn. The nest is usually placed in trees such as the fir.

The Screech Owl remains here during winter and may be heard early in the morning and late in the evening. Its cry is a trembling whistle uttered at intervals of about half a minute. The poet Gray has summed up this bird's qualities in one stanza when he says:—

"F on yonder ivy mantled tower,
The moping owl does to the moon complain
Of such as, wandering near her secret bower,
Moest her ancient solitary reign."

Although the Canadian owl has no such classical ruins to frequent as those haunted by his European kin, he does the best he can by way of frequenting old barns and hollow trees. It subsists on mice, sparrows and other small birds. Occasionally in winter you will observe a mouse track suddenly come to an end, and on examining it you will find the print of the owl's wings in the snow.

The Belted Kingfisher arrives in April and frequents all the streams in this locality. As they fly up and down the stream they have regular places to perch; these are generally situated over deep pools where the birds may have a full view of his aquatic hunting grounds. When his prey is once observed he darts at it with great rapidity seldom missing his mark. This pursuit is carried on until late in the autumn when the thin sheets of ice require him to seek a warmer climate. The Kingfisher's nest is built in a sand bank in an excavation made by the bird's long, sharp beak, to the depth of from four, six to eight feet. The nest is usually near the water, though not always so. I heard last season of these birds attempting to build their nest in an old straw stack, but on being disturbed abandoned the attempt.

The study of Ornithology is of great, practical value to the agriculturist. The knowledge thus acquired enables him to distinguish those birds injurious to small fruits and grains and to preserve the lives of those beneficial in destroying insects.

The Supply of Phosphates for the Manufacture of Super-phosphates.

(Abstract from a paper by H. Voss, London, England.)

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Phosphorus, in the form of phosphoric acid, being essential to all living organisms, plays a

most important part in the economy both of the vegetable and of the animal kingdom. Absorbed by plants from the soil through their roots, it enters into their composition as one of the principal inorganic constituents, and is thence transmitted as food to the animal world, where it enters principally into the formation of bone, but is distributed also throughout the entire system. Eventually it is restored to the soil, there, in the discharge of its functions as a fertilizer, it again becomes plant food; thus it plays its part in nature in an endless circulation from the vegetable world to the animal world and back again to the soil.

In the early ages of the world's history, there can be but little doubt that the natural order or sequence above indicated, proceeded without interruption and with perfect regularity; were such the case now there would be no need to trouble ourselves about our supply of phosphates. However, owing mainly to our habit of congregating in large towns, and to our system of disposing of the sewage of these large communities by discharging it into our rivers, we have given rise to a very serious disturbance in the natural order of things, occasioning a displacement and a serious loss of phosphoric acid to agriculture. This loss is not only continually going on, but is ever increasing, and requires to be constantly made up in one shape or another in order to maintain our land in a fit state of cultivation.

Large quantities of phosphoric acid are carried away from the soil every year by the crops sold off the farm and no attempt is made to restore the fertility thus lost to the soil. The time is soon coming when it will engage the most serious consideration of the farmers, they will then wish they had given it the attention it deserved long ago. Our forefathers in a way already recognized the necessity of restoring fertility to the soil by resorting to auxiliary manures, they not only used rich marl for their exhausted fields, but also applied large quantities of bone meal.

However, it was only when Professor Liebig suggested that bones by treatment with sulphuric acid would be rendered more soluble, and after Sir J. B. Lawes turned this theory into practice and began the manufacture of artificial manures, that the use of fertilizers became more general in England. The introduction of Peruvian Guano about the same time put at the disposal of the English farmer another powerful fertilizer enabling him to produce heavy crops hitherto unknown.