

more than amply represented, to the exclusion of many others equally important, or in some cases a great mining State was not represented at all. In all but one or two cases the labels, by means of which the public derives all its concrete information, were without other than local and superficial information; very often they were carefully concealed beneath the specimens they should have described, or illegible, or in a foreign language unknown to the average visitor. In the German exhibit no account was made of the products and methods which for seven hundred years have made of Saxon Freiberg the Mecca of the miner and metallurgist. The superb collection of iron from Sweden, which was one of the chief attractions of the Centennial, was not represented by anything worthy to be mentioned in comparison, and though Germany exhibited a fine column of steel rails and the peerless Krupp products, these latter were housed in the Krupp building by themselves.

So far as this part of the fair was designed as a means of instructing the public, its value was much less than that of the corresponding department of the earlier exposition. While it is not claimed that there may not have been sections in which the display at the Columbian fair was superior to that of 1876 in other respects than in mere size, the writer firmly believes that the earlier fair was better as an educator and that its influence on American industrial progress will prove to have been more far-reaching and salutary than the stupendous spectacle just concluded.

OWL NOTES.

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In a recent number of *Science* Mr. E. J. Hill gives an interesting account of capturing an owl under circumstances that might lead the reader to think that members of the owl family were dazed by sunlight. This may be the case with some owls, but I have, as yet, never fallen in with any so affected. There is no doubt that the bright glare of the sun is disagreeable to some species, but after flushing a short-eared owl and witnessing the ease with which it threads its way through tangled shrubbery, despite the sunlight, all doubts regarding their vision at such times will be set aside.

Very often, however, an owl will, in hopes of remaining unobserved, allow a person to pass remarkably near, often assuming an attitude suggestive of the knots on the limb on which it is perching.

Long-eared owls are often very averse to flying, judging from my observations. I have suddenly come upon one face to face, and sometimes several that were passing the day in a dense willow, and they immediately assumed a rigid, stick-like position, drawing themselves up to twice their natural length, evidently trusting to their resemblance to the surrounding stubs and branches, which was by no means slight. To escape notice—so great is their faith in the protection afforded them by this resemblance, when several are together, as is often the case in winter—one or more may be shot without the rest showing so much as by the movement of a feather that they are disturbed.

On one occasion a friend with whom I was hunting came upon five of these owls all in a row on a limb of a giant cottonwood. Beginning at one end of the line he shot them all, one after another, his last shot starting a sixth, which he had not seen, from a perch in the same tree. When I arrived upon the scene we began looking for the escaped owl, but failed to discover it. As we were leaving,

however, my eye chanced to fall upon what, at first, appeared to be an abnormal growth on the trunk of a small sapling near us, but which, upon a second glance, proved to be a little screech-owl. With its back against the trunk of a tree it was drawn up to its fullest height, all its feathers drawn tight against its body, its ear tufts erect. It looked to be twice its normal length, and so closely did it resemble the gray bark and branches that, unprotected as it was by leaves or twigs and in the strong glare of a bright winter's day, its discovery was purely accidental. Our tracks in the snow proved that we had several times passed within ten feet of the bird, and it was quite evident that it was aware of our presence; for while it made not the slightest movement, it watched us constantly through its half-closed lids, trusting, no doubt, to escape detection, but ready to fly if the occasion required.

On another occasion, while collecting birds along the Platte River, I discovered a screech-owl in a very similar position. The morning was very cold, and *Megascops* had sought the sunny side of a small cottonwood, where, with its back against the trunk, it was enjoying the grateful warmth of the bright sun. When discovered it had assumed such an attenuated position that, although quite close, I was by no means sure that it was not a broken branch that had attracted my attention. Thinking to secure a specimen but slightly mutilated, I fired at it with dust shot, but was surprised to see not the slightest movement from the statue in gray before me. Could it be that I had been deceived after all and had fired at a knot? Half inclined to believe that such was the case, I went forward to investigate and when within fifteen feet could see that I was closely watched through narrow slits between the lids. Not a movement was made, however, until I was about to lay my hands on it, and then my owl quietly slipped around the tree and was gone. It is probable that my shot, being so fine, had not penetrated the feathers, as it was not injured in any way apparently.

I once caught a screech-owl on her nest, and while I was by no means gentle in bringing her out into the open air, she was, apparently, sound asleep, and no amount of handling would awaken her. I whistled in her ear, opened her wings and laid her down on a limb, all to no purpose. *Megascops* had evidently been out all night and did not propose to be disturbed by such trifles. While investigating the contents of the nest she was allowed to lie on a branch for some minutes but gave no sign of life, but I no sooner attempted to drop her to the ground than she revived. Before she had dropped a foot the wings opened, and away sailed my owl, as much awake as any bird and probably congratulating herself upon a piece of very clever acting.

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