

SWANS.

The nest of the swan, says Mr. H. R. Robertson, is a thick and rather untidy mass of sticks, reeds, flags, and rushes. From the fact of the birds naturally preferring the most secluded spots by the water, we more often find a swan's nest on a small island than on either bank of the river; the osier beds are perhaps the localities most favored by them. The eggs are six or eight in number, and are hatched in five or six weeks. The young birds are termed cygnets, and are covered with a grayish brown plumage, which is not entirely lost till the beginning of the third year. Though the swan is, in general, very gentle and inoffensive, the male bird will defend the nest with great courage, and advance to the onset with ruffled pinions and every demonstration of anger; nor is it, from its muscular powers, an antagonist to be despised. While the cygnets are very young, one or two of them will sometimes climb up on to their mother's back, who never sails along more proudly than when her dusky brood is thus cradled between her snowy wings.

Swans do not breed until they are several years old, and they mate strictly in pairs; the technical terms for the male and female are cob and pen. The cob, or male, has a thicker neck and a larger berry at the base of the bill than the pen, or female; he also swims more buoyantly, from having more volume of lungs. Maturity in both cob and pen is shown by the size of the berry and the depth of the orange color of the bill.

Taking swan's eggs from the nest, and certain other birds', was an offence severely with in England in old times. We find, in an act of Henry VII., that "no manner of person, of what condition or degree he be, take or cause to be taken, be it upon his own ground or any other mans, the egg of any fawcon, gos-hawk, laners, or swans, out of the nest, upon paine of imprisonment of a yere and a day, and fine at the kings wil, the one halfe thereof to the king and the other half unto the owner of the ground where the egg was so taken."

The swan feeds on aquatic weeds, the spawn of fish, and coarse grass growing by the sides of the water; it is furnished with a gizzard of extraordinary muscular power, which enables it to grind the weeds, however fibrous, to a pulp.

All writers on the subject agree that the swan is very long lived, some saying that it attains thirty years, while others assert that it sometimes survives a century.

"Man comes and tills the earth and lies beneath,  
And after many a summer dies the swan."

The particular species that is the subject of the present article is often semi-domesticated on lakes and ornamental waters, and is known as the tame or mute swan—*cygnus olor* of the ornithologists. It is said not to have been originally a native of the British islands, but is found in the eastern portions of Europe and the adjacent parts of Asia, where in land seas, vast lakes, and extensive morasses afford it a congenial home. In Siberia and some parts of Russia it is common, and it abounds on the shores of the Caspian Sea. It is doubtful when this most elegant bird was introduced into Great Britain, where it is such a universal favorite.

Wild swans may be often observed flying in a wedge-like form high in air, but they very rarely settle. This species, *cygnus ferus*, is neither so large nor so graceful as the tame swan.

For its value as an article of food, the swan is now almost entirely disregarded. Two or three are still fattened every Christmas time for Windsor Castle, where, in accordance with old usage, they make their regular appearance on the royal table. On only one occasion have we ourselves ever had the opportunity of proving the taste of our ancestors in the matter, and we are inclined to class the royal bird along with the royal fish, the sturgeon, as really inferior in flavor to many a plebeian dish. In color the flesh is extremely dark, and if we may speak from our solitary experience, we should describe it as somewhat dry and decidedly coarse in fiber;

the bird in question was a young one, which had been carefully fattened, and kept till tender after being killed.

Willful Ignorance of Common Things.

A little knowledge may be a dangerous thing, but a knowledge of little things is useful and therefore desirable. At the recent meeting of St. Saviour's District Board of Works, Dr. Albert J. Bernays submitted his report as public analyst. In the course of his remarks he described the results of his various analyses of food, chiefly of milk, the adulteration of



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which he believed was on the increase. He had also analyzed several samples of bread and butter, and had generally found them to be pure. In conclusion, he suggested that a museum of common things should be attached to every board school, so that the rising generation might acquire a knowledge of them, and the uses for which they are intended. Dr. Bernays deserves great credit for his admirable suggestion. It is wonderful how ignorant the commoner class of people are of things in every day use. For them not to be able to distinguish between a hawk and a heronshaw is excusable perhaps. But there are many who hardly know a mangold or a swede when they see it, who would fancy oilcake was a larger and perhaps a coarser kind of toffee, and who might be at a loss to tell a field of potatoes from a field of turnips. Again, there are those who, following some mechanical occupation, are content with the knowledge of that only, and prefer to remain ignorant of kindred occupations. A glazier, for instance, will have nothing to do with carpentering. The

something of brickwork, and the bellhanger of ironmongery. We are aware that the selfish spirit of trades unionism steps in here, and lays it down imperatively, *ne sutor ultra crepidam*. As the cobbler to his last, so the carpenter to his bench, the blacksmith to his forge, and so on through the category of mechanical workmen. But what an advantage it is to men to be what is generally called handy! As the all-round cricketer of fair average merit is more successful in the long run than the brilliant bat who is a poor field and an indifferent bowler, or the unerring bowler who neither bats well

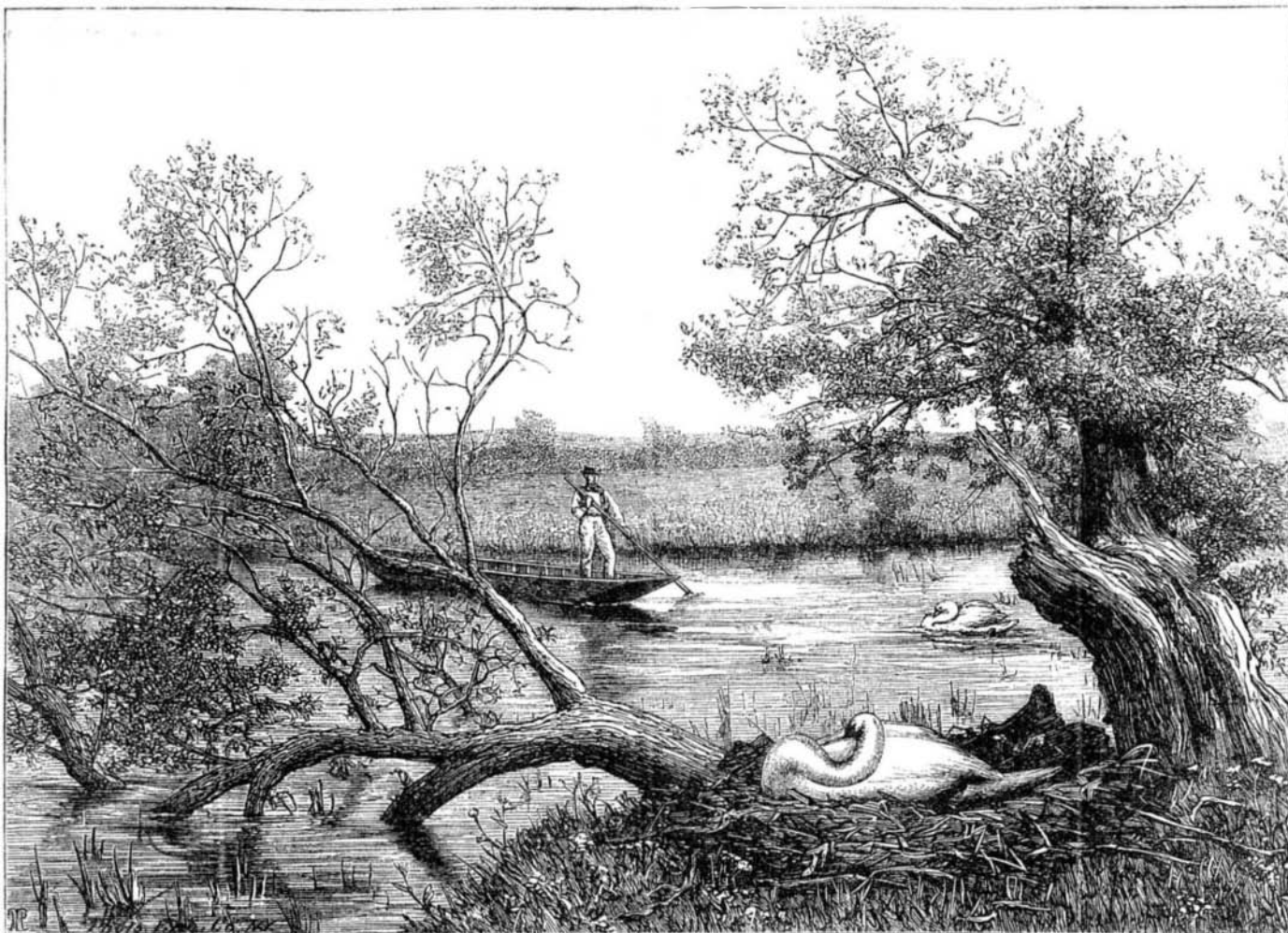
nor fields well, so the workman, who is a fair average carpenter, bricklayer, ironmonger, bellhanger, etc., may be more useful generally than the one who purposely confines his knowledge to one particular class of work. Put such a generally useful man down in the backwoods of Canada and we think the point of our case will be illustrated at once. Now if, in these museums which Dr. Bernays proposes to attach to board schools—why not to all schools?—there were specimens not only of comestibles, but of ordinary implements in everyday use; if, further, one or more paid instructors were attached to every such museum—such instructors would very soon become self-supporting—whose business it was to teach our rising generation the uses of these implements and the characteristic features of this or that food, it is no great evidence of wisdom to foretell that the said rising generation of Englishmen would be infinitely less ignorant and infinitely more handy and self-reliant than is the present. The man who tells you he cannot do this or that kind of work, and does not try to do it, is little short of a fool.—*Land and Water*.

Preservation of Wood Telegraph Poles.

Tar is employed, but it is necessary to apply it hot, and to avoid boiling it too long, lest it should lose the essential oils, which alone aid it to penetrate the wood. The latter should be first considerably heated to remove humidity and to open the pores; the tar is then applied, and, penetrating it, forms a strongly resisting covering. One thick coating produces a very bad effect; it is necessary to apply several light coats, a process somewhat difficult and requiring practice. If this mode is not adopted, a covering will be simply laid over the surface of the wood, which will be separated by damp, and, being brittle, will be easily broken away. The fungus filaments would then be free to attack the wood, and destruction would take place almost as rapidly as if the tar had not been laid on. The process above described can hardly be carried out without special appliances. The best mode is,

first to heat the wood, then to immerse in a bath of tar the whole of that portion to be placed in the ground, and to leave it in the bath for 24 hours at least. The tar should be heated to boiling point.

Carbonization has also been applied with very good results. By raising the wood to a sufficient temperature, coagulation takes place, and any dangerous spores are consumed. But it is better to burn the wood imperfectly than to carbonize it to such an extent as is usually done. When the burnt portion is too thick, it loses its cohesion, and becomes broken during transport, so that the wood is again exposed to the air. It is better to obtain a thin and uniform covering by soaking the wood in acidulated water (five parts of wa-



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carpenter will tell you that the setting of a grate or bell-hanging is no business of his. The ironmonger is utterly careless about bricklaying, and the bricklayer returns the compliment. Each of those classes of mechanics advisedly remains or professes to remain in utter darkness as to the occupations of his fellows. True, a jack of all trades may be master of none, but there is no earthly reason why a mechanic should not be able to adapt his manual talents to more than one kind of work. The hand that can use a saw or plane, that can adjust beams and joists with the greatest nicety, is surely able to fix a grate, to hang a bell, to use spade and trowel, pick or level. The ironmonger must know

ter and one of sulphuric acid) and heating it lightly without exposing it to the flames. The more acid is added to the water, the less heating will be required, and it is preferable to obtain a thoroughly solid coating, by heating it for a longer time, at a less elevated temperature. This method is all the more worthy of attention because the sulphuric acid penetrates the wood to a certain depth, and partially preserves it from the attacks of the fungus.

PAINT skins, boiled with linseed oil, and having, while hot, a quantity of sand and lime stirred in until the requisite thickness is obtained, make a durable cement for leaky roofs.