

**THE AUSTRALIAN BUSTARD.**

This remarkable bird, which is known as the *Charotis Australis*, or wild turkey, is found in many parts of the colony, more especially on dry, sandy plains, where they feed promiscuously on insects, herbs, or grain. They deposit their eggs in small hollows on the open plains, and directly the young birds leave their shell they are allowed to follow their instincts, and forage for themselves. In their habits they are particularly shy and timid, and very sensitive to the approach of danger. The plumage of the male, as is usual among the feathered tribes, is more variegated and beautiful than that of the female, and he is decorated with a singular pouch-like appendage suspended from his neck. This pouch was once thought to be a receptacle to hold water, but naturalists have proved it to be merely a temporary air chamber, and closely connected with the reproductive function. Our illustration represents the male bird as he appears at a time when

onslaught upon one another, which was evidenced by the piteous cries of those being devoured. Their method of seizing their victim is to suddenly make a raid upon one weaker or smaller than themselves, and after overpowering it by numbers, they tear it in pieces. At the present time there cannot be found a single young rat in the building. So far this is satisfactory, as the large numbers bred during the summer will thus become exterminated.

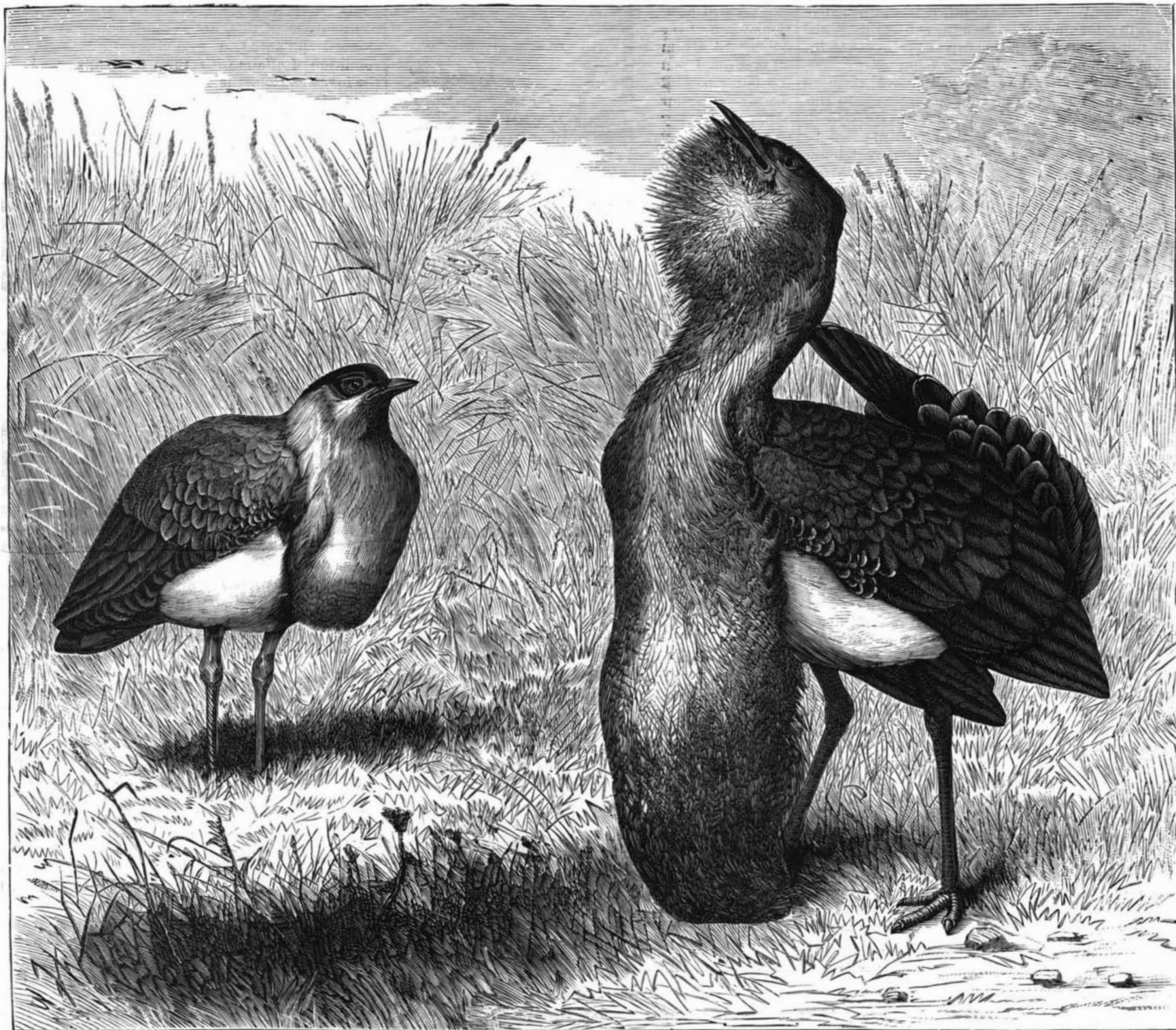
**Oxide of Iron as a Polishing Material.**

Rouge, crocus, and colcothar are terms which designate the various forms of peroxide of iron used as polishing agents in the fine arts. Rouge is oxide of iron which has been prepared by delicate and tedious process, and is in a state of minute subdivision. It varies in color from bright red to purple red, and exists in several degrees of fineness, which are of corresponding pecuniary value.

a beam of light. Silver, the whitest of all metals, owes its distinction to the great amount of light irregularly reflected, and, of course, also to the high ratio of total reflected to incident light.

Buffing lime has not cut enough to remove the dead or frosted surface from articles just out of the nicking bath, and burnt rotten stone was formerly in much request. This has now, however, given place to crocus, by which used to be meant on oxide of iron of coarser character than rouge, but now almost universally applied in Birmingham and Sheffield to the material when made up into bars by admixture with about 15 per cent of solid fat.

Crocus is of a tint approaching purple, and the oxide in this state possesses great hardness and cutting power. Cutting power, or cut, does not, however, depend altogether upon hardness; many hard substances, as, for example, glass, scratch with great readiness when in comparatively large particles, but abrade a



**THE AUSTRALIAN BUSTARD.**

he is termed "throwing off," but a display of this kind can only be seen early in the morning or at sunset in the month of June. With the advance of civilization the bustard has been driven back to the interior, and is now rarely to be met with. One specimen is, nevertheless, to be seen among the collection of birds at the Botanic Gardens.—*Pictorial Australian.*

**Exhibition Rats.**

We have referred on several occasions, says *Nature*, to the extraordinary number of rats which emerge from various parts of the building when the late exhibitions at South Kensington have closed and the supply of food is cut off. This year their number has been larger than ever, and shortly after the termination of the late Colonial and Indian Exhibition, the rats, desperate with hunger, invaded every part. During the summer nothing would induce them to enter traps, whereas now they rush in as fast as they are set, and not until they have devoured the bait do they seem to realize the fact that they are prisoners, when they seek deliverance in their usual wild fashion. Recently their cravings for food culminated in a fierce

Rouge is used to "color" metal work and to polish glass; for the "coloring" of gold, it must be excessively fine, and is then worth 4s. per lb. and upward. For ordinary silver and German silver work, a rouge worth from 1s. 6d. to 8s. per lb. is employed, according to the perfection of "color" required. By this term is meant the final polish or luster given to the articles after the preliminary processes, which, in the case of German silver, are sand buffing and lime buffing. The latter is effected by means of freshly burnt and powdered magnesian limestone obtained from the neighborhood of Sheffield.

After the articles are covered with silver, this lime is applied to obtain the first polish, and then rouge is made use of to impart the black luster or color. Steel is, of course, known to possess the highest luster of all metals, by which is meant that it reflects light more regularly from its polished surfaces than the others do. In other words, more light is reflected according to the angular law of reflection, and less is scattered indiscriminately. The better the range, the nearer the surface approaches these conditions, and the blacker the article appears when not directly reflecting

metallic surface to an extent quite inferior to oxide of iron when in a state of fineness similar to rouge or crocus. Colcothar is oxide of iron, harder than crocus, and of still darker appearance; it is found very suitable for the polishing of iron and steel, but has a severe competitor in emery for this purpose. Crocus and colcothar are, to some extent, convertible terms, and no very well defined limitation of meaning exists between them.—*Industries.*

**Successful Hatching of Salmon in Australia.**

According to the *Colonies and India*, the last experiment in sending salmon ova to the antipodes appears to have been a great success. In January, 1885, a shipment of eggs was made by Mr. James Youl, by desire of the Tasmanian Government, and the bulk of the eggs reached the colony in good condition, development of the embryo having been suspended by means of Haslam's refrigerating machinery. The eggs have developed into "fry," and the "fry" into "smolts," for several young salmon about 8 inches long have been captured accidentally in the Tasmanian Mersey.