The Origin of Punishment.

The young science of ethnologic jurisprudence is one of the branches of anthropology destined to throw unexpected light on the origin and significance of many of our daily customs and beliefs. A most important contribution to it has recently appeared from the pen of Dr. S. R. Steinmetz, on the early development of punishment ("Ethnologische Studien zur ersten Entwickelung der Strafe." Leiden, 1892). It is the second volume of the work, which, for various reasons, has been published first. His aim has been, first, to offer to students an extensive collection of facts drawn from the customs of primitive peoples regarding the question of punishments; and, second, to analyze their sociologic and psychologic significance.

The present volume begins with a chapter on blood revenge, tracing its development into the ordeal and the trial by battle up to the modern duel. The effects of blood revenge on social condition are pointed out, some being highly advantageous, others evidently injurious. The administration of punishment by the state is treated with much clearness and from a wide range of reading. It is shown to have developed from the systems of correction adopted in the primitive family, and was often in the nature of a compromise or blood money. Several chapters of special interest relate to the position of woman with reference to family feuds and revenge, and the authority over the males which she exerted in various communities, some of matriarchal, others of patriarchal constitutions. The intense bitterness of her feelings, and her ferocity, far ahead of that of men, are referred to and illustrated. The punishment of slaves and that of military discipline are also discussed. A curious closing chapter is added on the punishment by the gods, in this world and the next, and its influence on human punishments. It will be seen from this brief reference how extremely interesting the book is.

SCENTS AND THEIR RECOGNITION.

BY J. W. SLATER, LONDON.

THERE are some points connected with both the production and the recognition of odors by animals which seem to need further study. It is agreed that all species possessing the sense of smell at all, like and are attracted by the scent of their usual food, or of substances of a similar character. We have also evidence that animals are agreeably impressed with the specific odor of their own species, or of their own race or strain. On the other hand, they are disgusted and repelled by the emanations of hostile species.

These are results which we might expect on evolutionist principles, and which we actually detect whether we ascribe them to Professor Jäger's "soul-particles" or not. It is sometimes forgotten that peculiar odors not merely aid in the diagnosis of different human races but contribute no little to keep such races asunder. That the odor of the Negro or of the Australian "black-fellow" is repulsive to the white man is a familiar fact. But the aborigines of South America distinguish in the dark the smell both of the Negro and of the white man from that of their own race, and dislike the two former about equally. Even the two great branches of the white race, the Aryan and the Semitic, have a different and in many cases a mutually repulsive odor. During the recent anti-Semitic agitation in Germany and Austria the *Fœtor judaicus* did not escape comment.

At the same time we observe a few cases which we cannot well account for on the principles above laid down. Instance the feline group; the natural food of all such beasts is the flesh and blood of animals recently killed, and even in case of need, carrion. We might expect that beings habituated to such a diet would prefer odors not merely unlike but opposite to those which mankind select. Yet the fact remains that not merely the domestic cat but the leopard is passionately fond of the very same perfumes which we enjoy. Lavender, thyme,— in short, most plants rich in essential oils have a well-known fascination for the cat. Leopards have been charmed into docility and submission by means of lavender water. The difficulty becomes the greater if we reflect that nothing similar has been observed among the canidæ which have a much more acute sense of smell than the cats. I suspect, though I cannot furnish distinct proof, that the plants in question act upon the felidæ as aphrodisiacs. What may be the reason why cats so persistently browse away *Nemophila pulchella*? Its cultivation in London suburban gardens may be pronounced impracticable except under the protection of wire-screens.

THE PERCOPSIDÆ ON THE PACIFIC SLOPE.

BY CARL H. EIGENMANN, INDIANA UNIVERSITY.

THE Percopsidæ have hitherto been known from a single species having a very wide distribution. This species was discovered by Agassiz and described in his "Lake Superior."[1] He considered it a generalized type and relic of an older fauna. Professor Agassiz says (285): "Now the genus *Percopsis* is as important to the understanding of modern types as *Lepidosteus* and *Cestracion* are to the understanding of the ancient ones, as it combines characters which in our day are never found together in the same family of fishes, but which in more recent geological ages constitute a striking peculiarity of the whole class. My *Percopsis* is really such an old-fashioned fish, as it shows peculiarities which occur simultaneously in the fossil fishes of the chalk epoch, which, however, soon diverge into distinct families in the tertiary period, never to be combined again. . . . Now my new genus, *Percopsis*, is just intermediate between Ctenoids and Cycloids; it is, what an ichthyologist at present would scarcely think possible, a true intermediate type between Percoids and Salmonidæ."

During the past summer I made a series of collections of fishes through south-western Canada and the north-western United States. I collected in the streams emptying into Hudson's Bay and the Gulf of Mexico on the Atlantic side, and into Puget Sound and the Columbia River on the Pacific side of the continent. *Percopsis guttatus* Agassiz was found to be abundant in almost all the streams tributary to Hudson's Bay, from the Red River of the north to the Saskatchewan at Medicine Hat. In the Bow at Banff, at an elevation of 4,500 feet, it was no longer seen. The species seems to belong to the plains. It extends south to the Delaware River and Kansas, but is only rare south of the Great Lakes. It was not found in the Columbia at Revelstoke or at Golden, where collections were made, and which are nearly directly west of the localities where it was found to be so abundant, nor was it expected in these localities. When on my return trip I came to Umatilla, where the Union Pacific leaves the Columbia, and I noticed the favorable conditions for collecting, I concluded to stop, although the place was not on my itinerary and I would have but a short time for collecting. The Umatilla is a small stream which expands over a sand strip to form a shallow lagoon before emptying into the Columbia. I reached the station Sept. 6, at 5.20 P.M., and began work at once, as it was necessary to leave again at 4 the next morning. I was more than surprised to find that one of the most abundant fishes was a species of *Percopsidæ*, and that by this find the known habitat of this family was extended to the Pacific slope. Fishing was confined to the lagoon at the mouth of the Umatilla and to the Columbia immediately above this place. During the short time at my disposal over one hundred specimens of this family were obtained. No specimens were found in the Snake and its tributaries. It is really surprising that a species so abundant should have escaped detection till now unless its distribution is quite limited, as its absence at Golden and Revelstoke seems to indicate.[2]

The specimens prove to belong to an undescribed genus. The genus is more specialized than *Percopsis*, but still bears out Agassiz's idea of the family. It approaches much nearer the *Percidæ* than *Percopsis*, in that its dorsal and its anal fins are armed with strong spines, and its scales are much more ctenoid. In other words, its percoid affinities are much more pronounced than are

[1] Lake Superior: Its Physical Character, Vegetation, and Animals, Compared with Those of Other Regions. Boston, 1850.

[2] The elevation of Umatilla is given to be 300 feet by the Union Pacific Railway estimates.