

moved towards the margin, paused an instant, then deliberately plunged into the water. It swam strongly across the current, keeping its head, wrists, widely spread feet, and the tip of its tail above the surface, and making sculling strokes with its phalangeal membranes, which hung straight downward. The greater part of its back, and its interfemoral skin, except near the tip of the tail, were submerged. After reaching the ice a yard across the open stream, it turned and swam back, and attempted to clamber out at the point where it had entered. Like King Robert Bruce's spider, it made six vain trials but on the seventh it succeeded. It then shook itself in quadrupedal fashion, crawled across the ice to a nook beneath an overhanging rock, and lay still. I continued to watch it for five minutes, and was tempted to leave it until morning; but, realizing that it would soon be frozen to the spot, I picked it up.

In my hand it seemed perfectly active, at first struggling and biting characteristically, and giving vent to infinitesimal squeaks and to explosive puffs like the sound of a tiny one-cylinder engine. At times it would shake its head with a rapid vibration and snort loudly. Within a few moments it began to lick its membranes, comb its snout, ears and body with its long-clawed feet, then to clean the claws with its teeth, and, in short, to go through all the elaborate preening movements which make bats so extremely kitten-like. From time to time I noticed an evanescent, skunkish odor, which seemed as though it might be due to some periodical, perhaps defensive, glandular exudation. Its wet fur dried surprisingly quickly under the influences of the violent combing, and the high temperature that the animal soon developed by means of respirations at the rate of about 145 per minute.

The bat was an old female, with teeth worn down to a condition similar to that already described by Murphy and Nichols (*l. c.*, p. 8). Although it could have eaten no food for three months or more, it passed feces which proved to be composed principally of its own fur.

Probably the most noteworthy point about the whole incident is the record of an un-

wounded bat, certainly in full control of its bodily coordination, swimming in the icy water of a stream, apparently with intent.

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DR. HOBBS ON THE HISTORY OF SCIENCE

TO THE EDITOR OF SCIENCE: Touching the address of Professor William H. Hobbs to the Michigan Academy of Science, printed in SCIENCE (issue of May 11, 1917), I wish to point out:

1. That it is not customary among historians and students of history to consider the thousand years following the Hun invasions the "dark ages," or, as Professor Hobbs calls them, a "thousand years of stagnation" (p. 443) or "centuries of intellectual stagnation" (p. 442). No period which includes the thirteenth century can fairly be so described.

2. That Galileo never was tortured by the Inquisition (p. 443) and that the only "imprisonment" he suffered was in the homes of his friends.

3. That Giordano Bruno was burned for denying the divinity of Christ—not for advocating the Copernican doctrine.

4. That what Mr. Huxley termed "that chaff about the ego and the non-ego, about noumena and phenomena and all the rest of it, etc.," are not *mere* "metaphysical abstractions" in the sense that any thinking man can dispense with them. A thorough grounding in metaphysics (and logic) would be a very good start for a career in "science"; one does not know either intuitively and both are necessary for clear thinking and sound generalizing.

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SCIENTIFIC BOOKS

Manual of Psychiatry. Fourth edition. Revised and enlarged. By J. ROUGES DE FURSAC, M.D., and A. J. ROSANOFF, M.D. New York: John Wiley & Sons, Inc. London: Chapman & Hall, Limited. 1916. 8vo. Pp. 522.

Brevity, clearness of diction and simplicity of presentation with a sufficiently small num-