



Less Than a Worm?

DINOSAURS were remarkable for their midget brains, no less than for their huge bodies.

The biggest of all of them, the bulky-bellied Diplodocus tribe, huge as houses though they were, had brains that would scarcely equip a present-day rabbit or opossum. Their cranial cavities, as found in their fossilized skulls, have room for about the contents of a bantam hen's egg.

When word came in from Montana not long ago, of the discovery by Dr. Barnum Brown of a fifty-foot dinosaur skeleton representing an animal that must have weighed thirty tons when alive, with a brain cavity that could not have held more than about two ounces of gray matter, one zoologist remarked, "Compared with the size of its body, I do believe that a common fishworm has more of a brain than that!"

It seems to be impossible to find any record of an actual weighing of a fishworm's brain; although the curiosity of zoologists leads them into many strange researches, this particular job presents some particularly baffling difficulties in the technique of dissection, and apparently has never been done. But a casual examination of careful drawings of the internal anatomy of fishworms makes it appear that the low comparative estimate placed on the dinosaur's cerebral equipment might be no less than justice, at that.

Earthworms do have brains. Just above the mouth opening is a pair of tiny round pellets of nervous tissue, fused together. Below the mouth there is another pair, perhaps a trifle smaller, connected with the pair above by a sort of collar of nerve tissue that runs around the worm's gullet. The whole apparatus might properly be called the fishworm's brain, though meticulous zoologists prefer to use the more technical terms, supra-esophageal and sub-esophageal ganglia, respectively.

From the lower pair there runs back through the worm's whole length a pair of slender nerve trunks, on each of which there is a nerve-knot, or ganglion, for every one of the worm's many rings or segments. Thus each joint of the creature has a small private "brain" of its own. It is largely due to these that an earthworm can get along somehow even when it has been cut in two.

Seemingly the dinosaur also had some such arrangement for bodily autonomy. There was, for example, a sort of "second brain" in an enlargement of the spinal column, high up between the huge creature's humped hips. It may very well have taken care of most of the work of walking and the management of the great trailing tail, and perhaps of some of the functions of the internal organs as well. The little brain up in the head of course had charge of seeing and smelling and such hearing as "Dinny" cared to bother about. It also directed the endless job of eating for the jaws. It probably could assemble such vague general concepts as "wet" and "dry," "hot," and "cold." But it is difficult to imagine its doing anything that could be called thinking.

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ANTHROPOLOGY

Most Ancient Africans Had Teeth Without Caries

DENTAL caries of cavities render doubtful any really great age for several apparently primitive skulls found in Africa during recent years, in the opinion of Prof. T. F. Dreyer of Grey University College, Bloemfontein, South Africa. (*Nature*, Aug. 24)

Prof. Dreyer has examined teeth from between 30 and 35 burials in South Africa, known to date far back into the Old Stone Age, and he has not found a single one of them with caries. On the other hand, teeth from more modern burials at the same site have many such defects.

On the basis of these studies, he comments:

"The indication from this area therefore bears out the experience of European anthropologists—that caries is a comparatively modern disease and that no skull showing this condition can be regarded as ancient. Will anthropologists, in view of these facts, revise their views on certain South African finds—I may be allowed to mention particularly the Broken Hill and the Springbok Flats skulls?"

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PUBLIC HEALTH

Hospital System For the United States Proposed

A HOSPITAL system for the United States, with details as to what classes of patients should be cared for in state and in private hospitals, was presented by Dr. N. W. Faxon, director of the Massachusetts General Hospital, to the American Hospital Association.

Hospitals today are being subjected to the same social and economic forces responsible for the political and social turmoil that has affected a large part of the civilized world, Dr. Faxon pointed out.

A complete state hospital system is not necessary, in his opinion. It is, however, the duty and responsibility of the community to provide hospital care for people unable to provide for themselves.

Public hospitals should care for the indigent and those patients paying less than half the cost of hospital care. In general, they should not admit private patients, when other hospitals are available.

"Private hospitals would care for patients paying more than half the cost of hospital care, for patients paying the full cost of hospital care and private patients paying not only the cost of hospital care, but professional fees as well," Dr. Faxon advises.

"Patients with communicable diseases and psychiatric conditions would form an exception to this rule and it would ordinarily be the responsibility of the community to provide facilities for their care regardless of their economic classification, although they pay according to their ability."

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