

in diameter, scrobiculate and somewhat elevated in the middle. The whole was evidently covered with a dermal shield, and probably each eminence bore a more or less elongated horny spine. How much of the creature was covered by this heavy shield it is yet impossible to determine; possibly only the pelvic region was so protected, as in *Polacanthus*, since there is also preserved a series of large bony plates or scutes, each of about the size of one's hand, united transversely with each other, and bearing in the middle a prominent longitudinal keel. In addition, numerous flattened bony scutes were preserved, each measuring about three inches in diameter. There are no osseous spines. The bones of the skeleton are solid; the front legs are smaller than the hind ones; the dorsal centra are amphiplatyan, 75 mm. in width by 70 in length, with elevated arches, as in *Stegosaurus* or *Polacanthus*. The head is small, the teeth in size and form resembling those of *Paleoscincus* Leidy. The tibiae measure 145 mm. in width distally.

The beds in which this interesting specimen was discovered are composed of dark blue shales, from 30 to 75 feet in thickness, immediately overlying and conformable with the Benton Cretaceous. They have been traced continuously for more than forty miles, becoming thinner to the west, where they plainly show littoral and river disturbances. Two continuous lines near the middle, the upper one of white clay, the lower of ferruginous shales, everywhere permit the exact allocation of the fossils. The associated fossils are three or four species of plesiosaurs, one of them clearly belonging in the genus *Polycotylus*, hitherto unknown from above the Niobrara; a large species of a teleosaur crocodile; and a half dozen species of small gastropods and pelecypods, the latter occurring in myriads, in oft-times massive concretions, about twenty feet above the clay line; plesiosaur bones are sometimes found mingled with shells in the concretions. The invertebrates are of a fresh-water or brackish-water facies.

About thirty feet above these shales there is a layer of sandstone containing rarely a species of *Ostrea*; above which there are about

six hundred feet of sandstones and shales containing many characteristic Pierre invertebrates and a varied flora of dicotyledonous leaves. Surmounting the whole are not less than two thousand, and more probably three thousand, feet of light-colored Pierre shales. Fox Hills deposits have not been detected, unless in the massive sandstones immediately below the Laramie deposits.

I believe that the beds containing the vertebrates are of Niobrara age, and they may possibly represent the Belly River. That the dinosaur may prove to be generically identical with *Paleoscincus*, known from the Belly River and Laramie deposits by teeth only, is not impossible. I venture, however, to suggest the name of Hailey shales for the beds containing it, and the name *Stegopelta landerensis* for the dinosaur itself. S. W. WILLISTON.

UNIVERSITY OF CHICAGO,
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QUOTATIONS.

SHALL THE UNIVERSITY BECOME A BUSINESS CORPORATION?

IN the settlement of the larger questions of administration—the choice of president and of professors, the fixing of greater questions of policy—may not some council composed of trustees and faculty jointly share the responsibility to advantage? Whatever may be said in favor of the sound judgment of the well-trained business man, I can not doubt that he would be a wiser councilor for education if he could hear first-hand the views of devoted, intelligent scholars. On the other hand, will not the scholar profit equally by such contact, and is there any surer way to widen his horizon and to give him the experience which ripens judgment than to offer him a share in the responsibility of settling these larger questions, while relieving him at the same time of part of the pressure of the daily routine? In a word, recognition of scholarship in the choice of a president, an adjustment of duties which shall relieve the pressure upon the professor and student, a better contact between the governing body and the teaching body, with a common responsibility in the settle-

ment of the larger questions, seem to me distinct and practical steps in the direction of development which the university administration ought to study.

For one must not forget in considering the administration of a university that there are to every form of administration two sides: the mechanical and the spiritual. The mechanical part of administration is that which provides the machinery necessary to carry out a given enterprise. The other side of administration, the spiritual side, consists in getting out of men the best there is in them. For a set of perfect men any administrative system would suffice. Good administration consists in taking men as they are, with their prejudices, their faults, their virtues, and in getting out of them the highest results of which they are capable.

Now, our attention has been given of late years, in American university life, increasingly to the mechanical side of administration, and the machinery has been made to approximate more and more closely, both in its form and in its choice of executive officers, to the practice of the business corporation. Its very closeness and compactness of organization are in some respects its chief faults. That which is mechanical is always simpler than that which is living. To-day we need, in my judgment, to concern ourselves in the university with the spiritual side of administration.

It has been my purpose rather to state questions than to argue them; not to propose a substitute for our present administration of the university, but rather to point out certain tendencies in it. To inquire whether, if the republic be the ideal system of administration, it is not also a good one for the scholar, and to ask, at least in these days when events move so rapidly, whether the administration of the university as it is now organized tends toward the development of a larger type of professor and a finer order of students; to ask whether we are developing the mechanical side of the administration at the expense of the spiritual side.

For after all, we can never too often remind ourselves that the first purpose of the university is not to further industrial development

or to increase the wealth of a state, but that it is the development of the intellectual and spiritual life. This development can take place only in the air of freedom, however evident are the dangers which freedom brings with it. Wealth, power, the niceties of life, may all grow in an atmosphere of limited or of artificial freedom, but only in the air of real freedom can be grown that spirit and that intelligence which shall minister to those things which are spiritual and to those things which are eternal.—President Henry S. Pritchett, of the Massachusetts Institute of Technology, in *The Atlantic Monthly*.

AGRICULTURE IN THE SCHOOLS.

A DISTINCT step in the direction of encouraging the teaching of agriculture in the high school is the movement to recognize that work in the entrance requirements of higher institutions. To a certain extent these higher institutions determine what must be taught in the high schools leading up to them. Heretofore there has been no inducement to schools that were fitting for the colleges and universities to offer such courses, however much they might desire to do so, and no incentive to a student to take agricultural work if it were offered, since it would not entitle him to credit in meeting the entrance requirements.

This matter has been under consideration in several states, for it has been recognized as a bar to progress in introducing agricultural studies. Definite action has now been taken in Missouri. The university in that state practically determines what shall be taught in the high schools, as students are admitted to it on their accredited high school work. Members of the agricultural faculty have been urging that agricultural work in the schools should be given some recognition, and the council of the university has recently decided to allow a credit of one unit on the entrance requirements for a year's work in agriculture in a high school. Boys who are planning to pursue the agricultural course in the university can now take elementary work in the high school without endangering their standing for entrance to the university. It is believed that this recognition will stimulate the