But when last summer the spirit of this new world which has been created by modern science, the spirit of reason, of cooperation, or internationalism, was submerged in the wave of blind nationalism which swept the world back a thousand years towards barbarism, when the crowning glory of science, the objective, impartial search for truth was forgotten, and prejudice and hate alone dictated the words and acts of men, then it was felt necessary to abandon the plans for the Röntgen celebration.

But here in America where, let us hope, the spirit and the method of science still find some advocates, it is fitting that on the twenty-seventh of March we bring honor and appreciation to the seventy-year-old author of one of the world's greatest discoveries—Conrad Röntgen.

R. A. MILLIKAN

University of Chicago, March 18, 1915

## THE CONTENTS OF A SHARK'S STOMACH

To the Editor of Science: I have received from Mr. W. F. Cameron, of Zamboanga, P. I., a Stanford engineer, a photograph of a rare shark, Rhinodon typicus, a specimen about twenty feet long, taken on the island of Cebu. A notable feature about this shark, which has a very big mouth and small teeth, is that it had in its stomach 7 leggings, 47 buttons, 3 leather belts and 9 shoes. He had probably captured the cast-off garments of some company, otherwise the question arises—What became of the odd legging and the odd shoe?

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## THE SCALED AMPHIBIA OF THE COAL MEASURES

The preservation of scales among true Amphibia has been well known for many years, and their presence has been commented on by Huxley, Cope, Dawson and others. Recently the question of the crossopterygian ancestry of the Amphibia has received considerable support through the researches of Gregory, Watson, Broom and Williston, so that it will be of interest to state here the conditions of

the scales among the few species of Amphibia from the Coal Measures which show these structures. Scales are known on several genera of diverse relationship and seem to have been present independent of any common ancestry. These structures, presently to be described, are true scales, and are not to be confused with osseous scutes and ventral scutellæ. These latter structures will be dealt with more fully in another place.

Small scales hexagonal in form have been observed in a branchiosaurian genus, Micrerpeton, from North America, though this discovery has not so far been confirmed on additional material, although known to occur in another genus, Eumicrerpeton. From the Coal Measures of Ohio come two scaled microsaurian genera, one of which is Cercariomorphus, described by Cope, though never figured. The scales in this genus do not show many of the fish characteristics, though they resemble remotely some of the more aberrant forms. The scales are dermal tubercles inserted in the skin, without any definite plan of imbrication, such as is common among the fishes, although the scales have a definite arrangement simulating the fishes. The pattern shows a remote resemblance to some of the early ganoids. They are, moreover, true scales, and as such possibly indicate one more link added to the already full chain of facts which ally the Amphibia and the fishes.

The other genus from Ohio possessing scales is imperfectly known, but was tentatively allied, some years ago, to the genus Ichthyerpeton, described many years ago by Huxley from the Coal Measures of Ireland. There is no assurance that the forms are so closely related. They both possess scales of a similar pattern and have an identical form of vertebra. The scales in the only known American species are so badly scattered that nothing can be said of their arrangement. Dawson's work on the scaled Amphibia of the Coal Measures of Nova Scotia is well known. He has figured and described very completely the scales of Hylonomus. They bear a great resemblance to the scales of Cercariomorphus.

The question now before us is whether the