

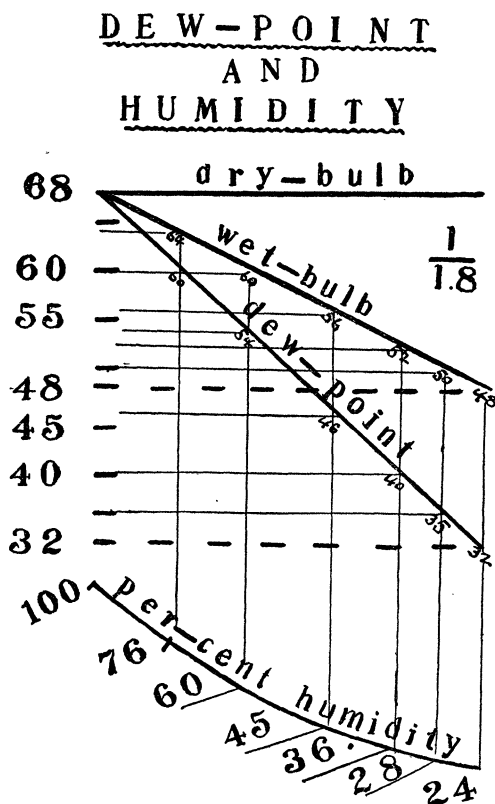
much the more likely, for the reason that all the conditions are more completely satisfied. No hyænodont is known in which the molars are reduced, whereas among the Oxyænidæ molar reduction is one of the most pronounced characters. In fact all the primitive characters are identical with those of this group. I take this occasion, therefore, to reaffirm the opinion I expressed on this subject some twelve years ago and I do so without modification or emendation.

J. L. WORTMAN.

McMURVILLE, OREGON,
June 6, 1906.

DEW-POINT AND HUMIDITY CHART.

THE chart shows dew-point and relative humidity in a room whose temperature is kept at about 68°. These are readily calculated from the readings of a wet-bulb thermometer kept in the room. So long as the temperature is kept near 68°—say between 66° and



70°—the difference between the readings of the dry-bulb thermometer and the dew-point is always about 1.8 times the difference between the readings of the dry- and wet-bulb thermometers. The percentage of humidity, which corresponds approximately to these readings, is shown in the curved line below.

JOHN F. WOODHULL.

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY.

QUOTATIONS.

THE MOST IMPORTANT WORK IN THE WORLD.

THE bringing of scientific agriculture into general practise is, we presume, the most important economic task that awaits us; and it is more than an economic task. In laboratories and on small experimental areas, methods have already been worked out which, if universally applied, would so increase the yield and the quality of our great crops, and consequently the profit of growing them, that the culture of the earth would become more profitable than commerce and manufactures. The ambitious young men have left the farms for the cities, from Abraham's day, if they had cities then, till our own, because they could make more money in trade and in similar pursuits; and the farmer, as a rule, has been the left-over man; and he will be so, till this economic situation is changed.

Great hopes were entertained a generation ago that the agricultural colleges would teach men scientific farming; and so they have; but most of the men who have thus been taught have themselves become teachers and have taught others who in turn have become teachers; and the man on the soil has, as a rule, not yet been reached with the new knowledge and with new methods.

Agricultural bulletins, too, have done good, but they have instructed those who least needed instruction; for the typical farmer does not learn farming by reading about it. Experiment stations have had a more direct influence and have caused better methods to be used in their neighborhoods.

But all these good agencies have yet failed to reach the mass of men who till the earth, the thousands and hundreds of thousands of

farmers who plow and sow and reap as their fathers did and who are suspicious of innovations, of book-farming, and of new ideas in general.

It remained for the National Agricultural Department, by a stroke of that common sense which we call genius, to begin the work of 'demonstration' on the farms of farmers who themselves work them. A report has been published by the Bureau of Plant Industry which explains the 'farmers' cooperative demonstration work' done in Texas and Louisiana under the direction of Dr. S. A. Knapp; and that is a pamphlet which seems likely to show a new hope for mankind.

The method of instructing farmers is simplicity itself. A demonstrator goes to a farmer and persuades him to do two or three such simple new things as to prepare his land in the fall or winter, to plow it deep, to practise intensive farming—that is, to cultivate it better—and to select his seed. This pamphlet is made up of reports from these 'demonstrators.' Wherever one farmer has once done these things on a small area under the direction of a demonstrator, the results have caused a change in the general agricultural practise of the neighborhood. The whole problem is to do such work in every neighborhood. These reports contain such remarks as these:

Six years ago an average yield of 30 per cent. of lint cotton was considered very good. Now we often have cotton that yields as high as 38 per cent. of lint. That alone in the cotton crop of the South means a profit of about \$30,000,000. (From Palestine, Texas.)

The seed we gave out last season produced from a third to three times as much as the old varieties. At Grosbeck, where 7,000 acres of cotton will be planted this year, a good season will produce 1,000 more bales than the same acreage would have yielded planted in the old way. (From Houston, Texas.)

In 1904 I had to be very careful how I approached a farmer. He would say he cared nothing about our book farming. Now they insist on my going to see them. There is 50 per cent. improvement in our agriculture as compared with a few years ago. (From Shreveport, La.)

The area over which this kind of instruction is carried on has this year been greatly ex-

tended. If this be not education that tells, then what is? One philosophical observer of this movement has called it 'the most important work in the world.'—*The World's Work*.

OBSERVATORIES AND ASTRONOMERS OF THE WORLD.

THE Committee of Bibliography and of Astronomical Sciences of the Royal Observatory of Belgium has undertaken to publish a list of the observatories and astronomers of the world. A request for information, in the form of a list of questions, with a model reply relating to the astronomical service at the Uccle Observatory, Belgium, has been addressed to all the directors of observatories. In addition the list will include such astronomers (university professors, amateurs, etc.) who are not attached to any observatory, but are, nevertheless, actively engaged in astronomical research. The information already sent will enable the committee to draw up not only a list of observatories, with their geographical coordinates and the members of the staff, but also a table showing the astronomical activity of the world, thanks to the facts given as to the instruments at the disposal of each institution, the pieces of research undertaken, and the papers published. The directors of those observatories who have not received the question-form, or who have not yet forwarded a reply, as well as unattached astronomers, are requested to send the information desired, as soon as possible, addressed to the chairman of the committee, Professor P. Stroobant, astronomer at the Royal Observatory of Belgium, Uccle, Belgium.

ELIZABETH THOMPSON SCIENCE FUND.

THE 31st meeting of the board of trustees was held at the Harvard Medical School, Boston, Mass., on June 25. The following officers were elected:

President—Henry P. Bowditch.

Treasurer—Charles S. Rackemann.

Secretary—Charles S. Minot.

Professor Bowditch offered his resignation as trustee, since he had now withdrawn from active participation in scientific work. The