

serve to show is the case, then what of it from the university standpoint? No one would question that many government publications are abundantly worthy of the honor, but consider first the usually composite authorship which makes it exceedingly difficult to attribute to any single individual his due share of the work or to stamp it in any sense as research on his part; add to this the full financial and legal responsibility of the particular government bureau for the character and scope of this piece of investigation. Consider further the absolute lack of control on the part of the university over the correctness of the results reached, together with the omission of even its name from the text of the paper, and it is hard to say wherein this procedure differs from granting the degree purely *honoris causa*. After all, there are many men in actual work to-day who achieve results which *per se* would warrant granting them a doctorate. The best elements in university circles unite in agreeing that such a practise is dangerous, subversive of the best interests of graduate work and tending to break down the real university which we are now striving to build up in this country. This new tendency is equally disastrous and if seen in its true light is only another form of the ancient error against which university men should be on their guard.

X.

AN INTERMITTENT FLOWING WELL.

SOME months ago the city of Albany, Georgia, in order to get rid of an objectionable pond of water in the suburbs, attempted to drain it off underground by boring a well to a cavernous limestone, ninety or one hundred feet below the surface, when this rather singular phenomenon was discovered. Mr. Charles Tift, former city engineer, and a very accurate observer, gives the following description of the well:

A low place in the city requiring drainage and there being no natural outlet, it was decided to bore an eight-inch well to the cavernous limestone, by which method other ponds in the city had been drained. This special pond covered an area of about one half of an acre, the water having an average

depth of eighteen inches. The well was bored at the edge of the pond, a small dam having been previously made to keep back the water. At the depth of ninety feet, the drill dropped some six or eight feet into a cavity. The drill was then withdrawn and the dam removed. The water at once began to run very rapidly into the well, not completely filling the bore hole, however. In six and one half minutes the well filled and the water began to bubble and almost immediately thereafter the entire column of water was ejected with considerable violence to an estimated height of about thirty feet. When the ejecting force spent itself, the water again commenced to flow into the well, and the same phenomenon was again repeated.

For about an hour the ejections continued, but with gradually decreasing violence and at longer intervals, but ceased entirely only when the static head of the water in the pond became greatly reduced. This well is said to repeat its geyser-like action whenever a heavy rainfall fills the pond.

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'THE WIRELESS TELEGRAPH AND AURORA.'

SOME time ago I conceived the idea that the wireless telegraph might give assistance in unravelling the mystery of the aurora. The result was not exactly what I expected, and at the present time seems to add more complication to what was already complicated.

I have a record of observation by the wire on six nights during the last year, grouped in three, one and two, respectively, giving what are known as 'freak distances,' during spells of aurora, or the brilliant clear weather associated with aurora. During these three periods we received signals and read messages over abnormal ranges of 700 to 1,600 miles with an apparatus that ordinarily will not operate over more than 250 miles.

The apparatus could receive, but not send, and directly the aurora ceased or diminished, in at least four cases, the long distance messages also ceased to reach our wire.

My facilities are woefully inadequate, and I hope some weather service station with