

## PROGRESS OF BACTERIOLOGY.

In the December number of *Naturen og Mennesket*, a medical publication of Copenhagen, Denmark, J. Carlsen, M. D., gives an interesting and a comprehensive account of how modern bacteriology has been turned to account in Greece in the killing of those pests of every land, field mice. About a year ago, he says, Professor Loeffler, a prominent follower of Professor Koch, discovered a bacillus which produces a deadly typhus fever in both house and field mice; mixed with mice-food it develops a deadly disease in eight to fourteen days, while having the advantage of not being at all dangerous to other domestic animals.

In the article spoken of, Dr. Carlsen describes at length the physical and economic conditions of Thessaly, Greece, and we learn that, from time immemorial, mice have been the curse of the land, devouring the best part of every year's crop. We do not wonder, for we are told that a female mouse, from the month of March till long into the summer, bears every month six to twelve, and sometimes twenty-one, young ones. Last summer the mouse-plague was more dreadful than ever before on account of the drought. The large landowners appointed some of their class as a committee to devise means for relief. The committee called upon Pasteur, who sent them to Loeffler. Loeffler had not as yet dreamed of so large a sphere for the trial of his discovery. He accepted the invitation to come to Thessaly, and, for a consideration, try his discovery, after he had made sure that mouse-species on which he had experimented was the same as that which plagued the Thessalians. In the laboratory the contagion was transmitted from one animal to another by pollution of their food; and by the living mice eating the dead bodies of those whom disease had killed. A good many difficulties attended on the doctor's operations, however, one of which was the preparation on a large scale of the food. At home he had used a decoction of barley-straw, to which he added 1 per cent peptone and ½ per cent grape-sugar. In such a fluid milliards of bacilli would develop in the course of a night. But in all Greece there was to be found only one steam disinfection-apparatus large enough for the production of the sterilized fluid, and that apparatus was in the University hospital. After the difficulty of hursting glass bottles and condensers had been met by the use of tin, and many other difficulties had been overcome, a beginning was made in the neighborhood of Larissa. Pieces of wheat bread of about an inch in thickness thoroughly saturated with the bacilli-fluid was placed in each mouse hole in the expectation that the mice would eat it. The government furnished an army of soldiers as workers to teach the peasants how the bread was to be saturated, and to show them by eating saturated bread that the bacillus was not dangerous to man. As soon as the peasants saw the effects upon the mice they entered upon their work with great industry; the rumor of success spread everywhere and the demands for the fluid were so numerous that no

supply was sufficient. The mice were killed, and the air was soon full of birds which feed on mice. Examinations of dead mice showed that their liver and melt were overloaded with bacilli. Honors were showered upon Prof. Loeffler.

The paper quoted from makes reference to a fight to be inaugurated against a rodent which does so much harm to Danish forests, of which we will have full accounts later. The field of bacteriology is widening rapidly, and when its developments are practically and usefully applied, as in the instances cited, its real benefits become more appreciable. We are as much interested in Utah as elsewhere, although but little if anything in a general way has been accomplished yet.

## THE POULTRY SHOW.

The exhibition of Utah poultry now going on in this city is a commendable proceeding and worthy the patronage of the citizens. Very few people realize the general utility of the barn-yard fowl and a closer acquaintance, such as the show referred to affords, will do no harm to any one. It is shown by statistics that the sober-looking, unpretentious, demure old hens that are seldom noticed are one of the greatest factors in our economic system, that the total value of their products every year runs up into the millions and that as a national wealth-producer they are ahead of all our gold mines—including those of San Juan—combined. The egg industry has assumed proportions of such magnitude and consequence that a high tariff has been placed upon the imported article; and now our hiddes repose in their nests more tranquilly, their cackles upon the arrival of each new addition to our internal commerce are merrier than ever, and the demonstrations of their male attendants at the same time are more than ever shouts of exultation. Protected eggs perhaps taste no better and are apt to come a little higher than the other kind; but since it is so, let us now give the author of the eggs a little more protection than she has been accustomed to, and let us occasionally give her a little encouragement by turning out and admiring her gracefulness, her modesty and her domestic virtues. She is the one feature of home life that we cannot replace, and her very chuckle as she plods with stilted gait from point to point in quest of the early worm and its attendant gravel is refreshing to the mind and cheering to the senses generally. See the exhibit by all means.

A TELEGRAPHIC headline in a local cotemporary reads — "Neither party have showed their hand." To construct a sentence of that length so that every word will be non-grammatical is a feat rarely accomplished.

A CHICAGO paper says: "It would be really unjustifiable to assert that the numerous street-cleaning movements have succeeded in making the streets any dirtier than they were. It's the heavy fall of moist snow that has done it." Same here!

## "THESE DULL TIMES."

The business situation is made the source of some little disquietude if not dismay. Firms long regarded as "solid" and whose sales seemed to be remarkably good have gone to the wall in such rapid succession as makes things look equally, and each successive one naturally enough leads to others, not particularly because of the example or through sympathy but more, we take it, because stagnation is increased if not engendered thereby. There is material for reflection in this proposition. To what extent men's demeanor, their countenances even, may influence activity in commercial circles is of course unknown; but all who take the pains to observe, compare and think will readily understand that such agencies do have their effect.

Some of the more knowing ones are predicting a great business revival in the spring. What it is to be based upon or come from is not shown. It is observable, however, that these changes from lethargy to activity are always a season or so ahead, probably because "the fields are green that are far away." It is at least possible, though, that such expressions do a great deal of good in the matter of forwarding the condition desired, and those who are gifted in metaphysics and economics might be willing to say that one is a matured outgrowth of the other; but as our sphere of information in those two abstruse departments is painfully curtailed, we will go no further than say we are willing to believe that there is "something in it."

A cunning, philosophic sort of person once figured out the amount of financial business which a five dollar bill properly handled could accomplish in a day. A paid B the bill on a debt, thus enlarging B's capital to that extent, making him feel correspondingly elastic and strengthening his confidence in A—a pretty good beginning one would say. B owed C something more than \$5, but he paid that amount and thus kept his credit good so that he could get twice as much in materials and thus enlarge his own stock in trade, whereby he could do an enlarged business; C paid the bill to one of his workmen for wages, whereby a provision bill was paid by the latter, and so it kept going, until when the day had closed enough different persons had received and paid out that bill to impart at least the semblance of activity to the entire circle, and the amount of valid transactions which the money had accomplished reached well-nigh a hundred dollars! Herein we see that it is not altogether the condition in which people really are that makes good or bad times, and that the way they feel has very much to do with it; also that it is not the amount of cash on hand that makes business lively and money apparently easy, but the use to which we put what we have.

We will not venture upon so palpable a truism as to say that we have now as much money in the Territory as we every had and only mention it as a kind of corollary to the foregoing. We might progress a step further by saying there is more than ever before and not miss the truth very much if at