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THE WORLD'S-FAIR PROJECT is moving on favorably. A meeting of prominent representatives of American industries was held at the office of the mayor of New York, where it appeared that the proposition was well received by this class, upon whose efforts success will depend. At this season many of New York's prominent men are out of town, but there is no evidence that this will interfere with the preliminaries of organization. Among the suggestions floating in the air is that there should be minor exhibitions in some of the other large cities of the United States, but it does not appear that this side-show business will meet with acceptance. At the mayor's meeting the appointment of four preliminary committees was decided on; and the mayor is using due effort to secure the right material for these, having invited the various commercial and industrial organizations for suggestions. The finance committee will be called on to secure a guaranty of something like \$15,000,000. The committee on the site will have necessarily a delicate task, in view of the enormous interests which will be affected; but, with the many points in New York which can be reached by land and water, there will be ample opportunity for a good choice. The matter of legislation will call for due attention, and, the more rapidly some results of the organization are to be shown, the better will be the prospect of recognition at the hands of Congress and the Legislature. What can be said now is that the scheme takes with those who will carry it through.

WE WOULD CALL ATTENTION to the letter by Dr. Lamborn in this issue. We think all will agree that scientific methods should be sought to lessen the number of mosquitoes, and that, where even a glimmer of light is seen promising that consummation, it should be followed by scientific men with the utmost vigor. New Jersey alone could afford to spend a million dollars a year on any plan that would largely lessen her mosquito-product. The life-history of any dragon-fly is yet but little known, and the characteristics as destroyers of small insects of many of the scores of species of dragon-flies is even less known. This attempt to get at facts to reason upon we hope will meet with the aid of scientific persons throughout the country, and that, with the results of this season's work before us, we may be able to conclude how far the dragon-fly may be used for the ends mentioned in Dr. Lamborn's letter.

CONSIDERATIONS CONCERNING SOME EXTERNAL SOURCES OF INFECTION IN THEIR BEARING ON PREVENTIVE MEDICINE.

(Continued from p. 73.)

As regards anthrax bacilli, it has been determined that in ordinary garden or field earth they do not multiply, but in earth contaminated by blood, urine, or fæces, their reproduction can occur. They can grow on various vegetable substrata. There is no reason to doubt, therefore, that the anthrax bacilli can find in or on the ground suitable conditions for their multiplication, although such conditions are not everywhere present. For durable infection of the soil with anthrax bacilli, it is, however, more important that these bacilli should find there suitable conditions for the formation of spores than that they should be able simply to multiply. The vegetative forms of anthrax bacilli would not, as a rule, be able to survive for a great length of time the hostile influences which they are likely to encounter in the ground; such as insufficient or exhausted nutriment, absence of sufficient moisture, and the attacks of saprophytic organisms. On the other hand, against these injurious influences the anthrax spores have great resistance. In the superficial layers of the ground the anthrax bacilli may often find those conditions of moisture, of temperature, of oxygen-supply, and of insufficient food, which we know are most favorable for the development of their spores: indeed, Soyka has shown that the ground presents often these conditions better than our culture media. A circumstance discovered by Feltz, which, however, needs confirmation, is, if true, of not little significance. He finds that anthrax bacilli may undergo a progressive diminution in virulence in the soil. If this should be true likewise of other infectious micro-organisms, we should be able to account in some instances for the variable degree of virulence which clinical observation indicates that certain agents of infection acquire. So far as anthrax bacilli are concerned, we may conclude, therefore, that the ground occasionally offers suitable conditions for their reproduction; but, what is of greater importance, it offers especially favorable conditions for their long-continued preservation in the form of spores. I must forego here the further consideration of the special circumstances inherent in the soil which control the origin and spread of epidemics of anthrax in cattle, although many interesting investigations have been directed to this subject.

Of greater interest to physicians is the behavior of typhoid and of cholera bacteria in the ground. As has already been intimated, the ground is regarded by Pettenkofer and his school as the principal breeding-place of these micro-organisms outside of the body. This view, however, is not supported by bacteriological investigations. Inasmuch as the cholera and typhoid bacilli may multiply on various vegetable substrata and substances derived from animals at temperatures often present in the ground, it is evident that here and there conditions may be present for their growth in the ground; but this growth is likely to be soon interrupted by the invasion of ordinary saprophytic organisms and other harmful influences. The typhoid bacilli are more hardy in resisting these invaders than are the cholera bacteria, which easily succumb; but even for the for-

The World's-Fair Project -- Mosquitoes and Science

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