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## Original Communications.

### THE EXPERIMENTAL TRUTH IN RELATION TO DISINFECTANTS.

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The following article (translated from the Spanish) is presented in the September number of the "*Revista Argentina de Ciencias Medicas*," of Buenos Ayres. Probably some, if not many of the statements of the author will appear rather marvellous to Canadian medical reader at the present time, considering the great practical value which has been attached to disinfectant processes during the course of the small-pox epidemic, which has proved so destructive in the City of Montreal and the adjacent villages. If, as seems to be generally believed, these processes are efficient in the prevention of infection, and the statements of the Spanish experimenter, *Dr. Jose de Letamendi*, are perfectly reliable, the conclusion seems inevitable, that microbes have no part in the causation of infectious diseases, or that if they really are the conveying agents, the accredited destroying means of disinfection must accomplish the desired purpose by virtue of some other sanitive process, distinct from that of killing the microbes, for this result would seem to be unattainable even by the most powerful chemical agents hitherto employed. *Letamendi*, as the reader will find towards the end of his article, reduces his disinfecting means to the two primitive agents, *water and fire*. In this simplification of disinfection, he has, perhaps, come as near to the truth as persistent experimentation and common sense enabled him to attain. We now submit the article as it was presented in the *Archivos de Therapeutica*, in Spain :

"The conflict with a determinate species of the microbes may be as relates to the family, individual or collective. In taking the field in single

combat we must have recourse to the therapeutic agents which kill the aggressive horde in the collective combat (epidemia from contagion); as soon as the microbes have assailed a population, recourse must be had to a prophylactic means, which, by killing the germs emanating from every diseased person, in his *excreta*, and adhering to retentive objects (*contagium vivum*), cuts short the epidemic process. By virtue of these indications, and by calling disinfectants the means which, in individuals and things, kill the infecting microbe, the following two problems are naturally presented :—

1st. Is curative disinfection, or that of individuals, possible? 2nd. Is preventive disinfection, or that of things, possible?

Let us see. At our very outset sound sense imposes on each of these problems a certain limitation. Here is the limitation of the 1st problem :— It is indispensable that the agent destroying the microbe shall not overpass, in the diseased person, the limits assigned to therapeutic disturbances. Without this limitation it would be possible, in killing the cause of the disease, to kill our patient also. The limitation of the 2nd problem is this :— It is requisite that the agent killing the microbe shall not attack retentive objects unless within certain prudential economic limits. Goods, articles of utility, capital, wealth, are products of industry which are esteemed by the people as the equivalent of their means of life.

Having now stated the theo-practical problem, let us seek its solution, not in mere arguments, but in real facts, positive and correct. In this field nothing exposes more to error—unpardonable error—than submitting our own conduct to outer-authority; be it that of a man elevated to the undisputed position of a demigod, or that of a precedent established beyond appeal by a judge. Facts have truly a decisive force; but they must be facts seen, not heard from others, and not assented to from mere laziness to test them. I proceed, therefore, to present the results of my own experiments, some of which were made in 1865, when the *religion of carbolic acid* was introduced into Spain, and others during the present year, recommending to the reader, beforehand, the utility of testing them by himself, or in association with some person expert in the matter. The microbes subjected by me to experimentation, have been the *bacterium*,