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## ORIGINAL ARTICLES.

### THE WIND AS A FACTOR IN SPREADING INFECTION.

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At this season of the year when the prevalence of typhoid fever reaches its maximum the physician is often sorely puzzled to account for the origin of many isolated cases occurring apparently without connection with each other or with pre-existing cases. Now that the bacterial nature of the infection in typhoid fever has been satisfactorily established we can no longer fall back on insanitary conditions as being the source of the outbreak of this disease. These can only be regarded as accessory and contributory causes. The drinking water is, of course, the favorite medium of introduction to the system, and it is well recognized that "the maximum prevalence of typhoid co-incides with the lowest recession of the ground water from the surface of the soil." This condition favors the presence of organic matters in the wells which will thus constitute a suitable radius for the development of the typhoid germs, but the real problem is to account for the presence of the germ itself.

Typhoid has become so generally distributed in the province that it may be regarded as endemic. We have few cities where large communities are receiving the same water supply. In the towns and villages, and on the farms, the water is almost entirely supplied from surface wells and

not a few people use rain water collected in cisterns. These sources of water supply are all largely independent of one another. There are few water courses. In some cases, especially in towns and villages, the wells may be contaminated through direct soaking of surface water containing the germs, but the great majority of cases cannot be so explained. In trying to account, under these circumstances, for the general distribution of the disease there is one factor which does not seem to have received the attention it deserves. The wind may be a very potent agent in the dissemination of disease. The tendency of bacteria to cling to dust particles is well known, and they may thus be carried to places where the conditions favor their development.

In this prairie land we are quite familiar with the long distances to which dust may be carried by the high winds, and the agriculturist recognises this as one of the most active agents in distributing the seeds of noxious weeds. That this agency of wind is also at work in mountainous regions the following incident will show. Early this year there was a fall of dirty yellow-colored snow at Lugadi in Switzerland. When the snow was boiled and allowed to settle there was a thick deposit of mud which was found to contain iron in combination with other minerals--a particular combination characteristic of certain iron ores in Hungary hundreds of miles away. The dust had been swept up from the plains and carried in the higher currents of the atmosphere till