great mass of bacterial growth is located in the intestinal tract. We must also notice that the amount of toxine produced is, of necessity, in exact proportion to the number of bacilli present. In like manner, the tissue changes and derangements of function occur in direct proportion to the quantity of poison generated, to its degree of concentration, and to the length of time it remains in contact with the tissues.

Having seen, then, that cell destruction in typhoid fever, whether in the lymph follicles of the intestine or in the wall of an artery, in the muscular fibre or in the nerve mechanism which governs its action, is due to this substance and to it only, and knowing also the source from whence it is derived and the conditions which intensify and diminish its action, can we by any form of treatment (1) get rid of any portion of poison already formed; (2) prevent, to any extent, the production of further poison; (3) limit, to any degree, the action of the poison already in contact with the tissues? I am of opinion that by the adoption of a plan of treatment which combines free elimination with antisepsis these several results can be obtained. Let us consider, first, the question of elimination, for I believe it to be the more important factor.

If we suppose a case of typhoid infection, the contents of the intestine teeming with bacilli, and also holding in solution a quantity of the toxic material as yet outside the circulation, and if by giving a purgative medicine we are able to sweep a quantity of this substance out, together with the fungi which produced it, we have certainly attained our first object, and have got rid of some of the poison already formed. But purgation not only casts forth what is already in the intestine, but also causes a change in the fluids of the body throughout; and if we reflect that the toxine which has been absorbed from the intestine, and which has been formed by the colonies of bacteria located in the various parts of the body, is held in solution by these fluids, we necessarily lessen its quantity by purgation. We are able to produce this desired change in the fluids of the body by another process—the giving of fluids freely, thereby increasing the flow of urine and eliminating through that channel.

We have next to adopt means to prevent further formation of poison. This can be accomplished by either of two processes—or, better, by a combination of the two—purgation and antisepsis. It is obvious that if we sweep out, with every movement of the bowels, immense numbers of bacteria which would otherwise remain in the body, we are to that extent preventing the further formation of poison. It is also clear that if we can introduce into the intestine any substance which will have the effect either of destroying the bacilli or of diminishing their rate of multiplication, a like result is obtained. It is, I believe, now beyond question that we have in salol, thymol, naphthol, salicylate of bismuth, and many others, a num