

works were translated into French and German, and an edition was published in this country in Philadelphia. (Currie was a citizen of the colony of Virginia when the Revolutionary War broke out, but being loyal to the Crown he returned to England.) His rules for abstracting heat by water have been improved but little. Quinine had not been extracted from the bark in his day, yet he used the latter freely. The suddenness with which Currie's plan of treatment was abandoned after his death, which occurred in 1805, is one of the unexplained mysteries of medicine.

We are indebted to the Germans for reviving and establishing this plan of treatment on a sound philosophical basis. It is the most rational as well as the most successful treatment that has ever been adopted in this fever, as is clearly shown by statistics. At Basle, Switzerland, Liebermeister reduced the death rate from 28 per cent. to 8 per cent. At Kiel under antipyretic treatment a little more vigorously and systematically applied the mortality fell to 3.1 per cent.

The analysis of the statistics of the German Army are valuable and convincing. From 1820 to 1844 the death rate was a little over 25 per cent. From 1868 to 1874, under partial and imperfect antipyretic treatment, the rate per cent. of deaths was reduced to 15. From 1874 to 1880 the treatment was more general, and the death rate was reduced to 8 per cent. In the Second Army Corps the cold water treatment was more thoroughly tested. When this treatment was begun by Dr. Abel, who is a strenuous upholder of this plan, the mortality rated at 20 per cent., which, however, soon fell to less than 5 per cent. Still more striking is the confirmation afforded by the five principal hospitals of this corps which were under the immediate and personal supervision of Dr. Abel. In 1860 the mortality had been 25 per cent., by 1877 it was lowered to 7 per cent., and during the five years following the immediate coming of Dr. Abel it fell to 14 deaths in 764 cases, or 1.8 per cent.; these figures are taken from an article in the *Review Scientifique* from among many others all from official sources and all pointing to the same conclusion.

During an extensive epidemic which has recently prevailed in France this plan of treatment has been tried successfully in some localities, although the French, since the Franco-Prussian war, do not take kindly to German methods. In Paris the

hospital physicians disagreed in regard to its utility upon theoretical grounds, and it was not used systematically, and consequently gives no statistics of value. In the city of Lyons it was vigorously used, with a reduction of the mortality rate to 2 per cent.

Our most favorable reports come, however, from private practice. Neither water-works nor bath-rooms are necessary to secure the best results from this plan of treatment. Indeed, the latter cannot be used, for patients cannot be transported from the sick chamber to the bath-room, even though it might be in an adjoining apartment. I have treated upon this plan sixty-three cases with two deaths. Dr. J. R. Featherstone, of Indianapolis, has treated fifty-seven cases with one death. Dr. W. H. Vanzant, of Carbon, Ind., has treated twenty-six cases with no deaths. Dr. S. E. Earp, of Indianapolis, has treated eleven cases with no deaths. This gives a total of (157) one hundred and fifty-seven cases with three deaths only, or a rate per cent. of mortality of 1.9.

The highest temperature reached by any of these cases was 107.75°. It occurred during the death agony after severe and repeated hemorrhages in a patient whose temperature previous to that time had not exceeded 104.5°. One patient recovered whose temperature about the middle of the second week touched 107.5°, another whose temperature reached 107° recovered. The temperature of sixteen of my cases went to 106° and beyond, some ranging as high as 107.5°—all of these recovered, a result hardly to be expected from any other plan of treatment.

Hemorrhage of the bowels occurred in nine cases, or a little less than six (5.7) per cent. It has been claimed that hemorrhages are more frequent under this plan of treatment. Exactly the converse is true. The inflammation is less in the ulcerated mucous membrane, the bowel is not stretched and distended, and its capillaries torn by tympanitis. This is one of the complications which belongs more properly to the latter stages of the disease. More patients live to the period of the disease at which it occurs, which accounts for the apparent increase in the number of cases suffering from this accident.

Of these one hundred and fifty-seven cases, eight relapsed, five and two-tenths per cent. of the whole. It is also claimed by the opponents of this plan that more relapses occur than when the expectant or do-nothing plan of treatment is