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ON THE DANGERS OF LEADEN PIPES FOR CARRYING WATER SUPPLIES.

A. HAMON, of Paris, has been during the past few months writing a series of articles, published in the Sanitary Record, on the above named subject. In the last number of the Record he gives an enormous amount of evidence relating to the dangers in the use of such pipes, filling three double-column pages of authorities.

In the time of the Romans, he says, leaden pipes were in use, and Vitruvius condemned them; "Minime fistulis plumbeis aqua videtur si volumus eam habere salubrem." More than a century after, Galen also condemned the use of lead for the conveyance of water. Some German Emperors, at the end of the fifteenth century and at the beginning of the sixteenth, prohibited the use of lead. In the United States, upon a report of Dr. Franklin, an Act of legislation of the State of Massachusetts, passed in 1723, almost entirely prohibited the use of lead. In the nineteenth century the proofs of the danger arising from lead through the canalization of alimentary waters increased to such an extent that many physicians and chemists of all countries occupied themselves with that important question of public hygiene.

In England since 1795, when this question was taken up by The Medical Commentaries, it has justly occupied public opinion. Besides the learned Englishmen of this country whose names have been quoted in preceding chapters, we see Lambe, Taylor, T. Thomson, Robertson, R. D. Thomson, J. B. Harrison, Rees, Ransome, B. W. Richardson, H. Osborne, Baldwin, Latham, H. Haine, Lankester, A. Fergus, C. B. Fox, W. Thomson, J. Parry, A. Roberts, G. Wigner, Thorne Thorne, R. A. Gordon, Thomas Stevenson occupying themselves with the question. Most of these learned men have pronounced against the use of lead pipes.

Whenever water passes through leaden pipes there exists danger, according to the majority of the learned men above named. The London Board of Health in 1850, the Manchester and Salford Sanitary Association in 1861, have declared that leaden pipes should no longer be used.

Numerous German, French and other authorities are quoted by M. Hamon, and the wonder is, indeed, and remarkable it is, that lead pipes are in such common use as they are.

In the last British Medical Journal (June 22) we find the following remarks in an editorial on "Lead in Urban Water Supplies": In the selection and distribution of water for public and domestic purposes a highly important and often overlooked question is its behaviour towards the lead with which it is liable to come in contact in service pipes and cisterns. Public attention has so frequently of late been attracted to the serious consequences which have arisen through the distribution of water which acted powerfully on lead, that it is highly necessary that before a town is subjected to the dangers arising from lead poisoning a thorough investigation should be made of the proposed source of supply.

In the course of experiments which Professor Percy Frankland has been conducting for some time past on the corrosion of lead, he has found that there may be a marked difference in the behaviour of one and the same water towards new and old leaden service pipes.

It was also found that not soft waters alone act upon lead, but that in some cases waters possessing considerable proportions of temporary hardness also have this property.

In order to render the conditions of experiment as analogous as possible to those existing in actual practice, waters of dif-