

hygiene of the American people are due in short order as soon as the public is awakened to the possibilities.

Tarring Roads.

The Sanitary Record points out that road authorities in whose districts there exist protected trout streams find that their endeavors to cope with the dust nuisance are attended with considerable difficulty. They are appealed to, as in the case of the Berkshire County Council, by users of the roads to deal with the dust trouble by tarring them, whilst from the same district they are threatened with litigation in the event of any damage being caused to the fishery. The Berkshire County Council are attempting to evade litigation by instructing their surveyor not to tar the roads where a possibility exists of injury to the fisheries, and of the two evils have concluded that this step is the lesser. But the road users, on the other hand, have a good right to complain, for they conclude that they should be considered in preference to the fisheries. We have no information as to the material which the Berkshire County Council have used or propose to use for tarring their roads. If crude tar be used, then fish poisoning with its use is usually inevitable. On the other hand, if distilled or refined tar, or some of the admirable proprietary tar compounds, be used, then there is no evidence that fish poisoning has been traced to their use. It would appear that in the adoption of such a compound there lies safety for road authorities and fishery owners."

Past, Present and Future Sanitation.

In continuing his outline of the new public health, Dr. Hibbert W. Hill of the State Board of Health of Minnesota, notes in *The Journal-Lancet* the past, present and future of public sanitation. The past was an era of general sanitation, a strenuous campaign of universal clearing-up, "an orgy of sweeping, burning, scrubbing; an ecstasy of dirt-destruction—individual household and municipal." Here there was distinctly no difference made between routes of infection and sources. The pres-

ent is an era of specific sanitation. The practice is to analyze deliberately the particular outbreak of disease concerned; speedily to determine the route of the infection actually responsible; and promptly to abolish and block that route. The future is to be a supervision of sources, with work accomplished before the diseases set out upon their routes; plainly and directly, prevention, the stitch in time that saves not the nine merely of the proverb, for the philosophers who compiled the proverb were not bacteriologists and did not realize its possibilities, but saves thousands.

In the past a typhoid epidemic was met by a vigorous attack on dirt, damp cellars, dust, disorder; on garbage, manure, dead animals, weeds, defective plumbing, and stagnant pools. Cobwebs were cleared away, windows opened to let in the blessed sunshine; preachers preached cleanliness; teachers taught bathing, and health officers limed alleys and whitewashed outhouses. "We know now," says Dr. Hill, whose articles are set forth in *The Journal-Lancet*, "that typhoid infection is carried by water, food, flies, milk and contact, and that general cleaning-up cannot remove infection from polluted water mains or purify a contaminated milk supply, and cannot stop the eating of infected food or eliminate much contact infection."

The present era of specific sanitation began about ten years ago. There were recognized certain routes, one of which is the responsible one. To find this it is the custom to flood the stricken community with inspectors, analyze the water supply, investigate the milk, go through the markets, delve into the provision stores, estimate the number of flies, survey the back alleys, examine the mortality tables and, in fact, study all the data pertaining to the community. Under such a quest, costly and spasmodic, the guilty route can hardly hope to escape detection, especially since every year or two brings into the matter some hitherto unknown route, such as for example the typhoid carrier. These methods are scientific, logical and exhaustive, but laborious and exceedingly slow. They are, however, a-killing the tree by nipping its branches from ladders instead of by boldly cutting it down. Dr. Hill parallels the older ways by suggesting a hunter who is commissioned to find a certain sheep-killing