

Dr. Holman finds that soot acts as a disinfectant. Water seems to dissolve the disinfecting agents in the soot making them more active than when dry. Carbon floating in the air seldom, if ever, carries bacteria, unless it has lodged on the ground and is again blown into the air. Soot acts as a very effective blanket, protecting bacteria and giving them a chance to grow.

Dr. Day finds that diseases of the nose and throat are not appreciably more prevalent in smoky cities, but that they are more severe and harder to cure. This is probably due to the cracking of the mucous membrane by the dry atmosphere in the houses, and subsequent irritation by dust, quite as much as to the action of the smoke. Singers, on visiting Pittsburgh, usually get Pittsburgh sore throat, which lasts about seven days, when they become acclimated for the time being. Unfortunately though, the same thing occurs on each succeeding visit to the city.

THE COST OF SMOKE.

We are coming more and more to look at the smoke problem as fundamentally an economic one. We have been told time and again that smoke and soot are the products of imperfect combustion which means a waste of fuel, and, consequently, unnecessary expense. But there is more than this to the question: smoke is not only a tax to the producer of it, but it causes a loss to every man, woman and child in the community.

Many estimates of varying degrees of accuracy have been made of the financial damage due to smoke and soot. In 1905, the Hon. F. A. Rollo Russell estimated the damage in London to be \$26,000,000. The largest single item of this amount was \$10,750,000 for extra washing and wear and tear of linens. The Cleveland Chamber of Commerce in 1909 placed the loss for that city at \$12 per capita or \$6,000,000 for the entire population. Matthew Nelson, Chief Smoke Inspector of Cincinnati, asserted that the loss there was \$100 per family. Mr. Paul Bird, in his report as Chief Smoke Inspector of Chicago, declared that the loss in Chicago was at least \$17,600,000, or \$8 per capita. In a paper read before the American Civic Association, Herbert M. Wilson, Chief Engineer of the United States Bureau of Mines, stated that a careful government inquiry into the toll paid by the people of the United States showed a total of over \$500,000,000 or a toll of \$17 a year for every man, woman and child in the larger cities.