

4. Have any cases of inoculation of skin been observed, or any case of lupus presumably due to the handling of infected rags?

To each and all of these queries I obtained negative answers. As regards the disinfection of the rags, it was stated by some that the bales of rags were opened and sorted without any preliminary measures. At Messrs. Pirrie's, at Auchmill in Aberdeenshire, one of the directors kindly took the trouble to write to me on the subject and stated that "the rags are not disinfected or wetted by us; they are presumed to be disinfected at the place of despatch if they have been in any way in contact with disease. What we do on receipt of the bales is to split them open and throw the rags into a mechanical duster, where they are thoroughly shaken up and dusted before being placed in the hands of our sorters." Dr. J. E. Fowler, of Auchmill, who sent me the direct reply to my questions, stated in answer to question 4 that "occasionally poisoned wounds of the finger happen, but only one case of lupus, and in that case the disease attacked the lip." From Mr. Wilkinson, of King's Norton in Worcestershire, whose special field of experience lay in the large works of Messrs. Baldwin, where paper of all kinds is manufactured and where the coarsest as well as the better kinds of rag are employed, I received negative replies to all four questions, with the following rider: "In a practice of twenty-two years at King's Norton I cannot call to mind a single case of tuberculous disease among the employes at Messrs. Baldwin's paper mills." In the extensive works of Messrs. Towgood, at Sawston in Cambridgeshire, nothing had occurred to suggest that the inhalation of the dust had ever been followed by tuberculous infection. From Bury in Lancashire, where are the mills of Messrs. James Wrigley and Son, Limited, the testimony of Mr. W. H. Barr was kindly supplied to me and bore out very fully the evidence afforded from other paper mills. Writing to the directors, he says: "During the twenty years I have been attached to the Dispensary and Infirmary, together with my observations as medical officer of health for a like period, I have perceived no connection whatever between the diseases named and workers in not only your paper mill but many others; moreover, as certifying surgeon under the Factory Acts, I have failed to notice any special connexion between the said diseases and the handling of rags, etc., in paper mills. I may add that the daily opportunities I have of observing such a connexion, if it existed, could not have escaped detection."

From the specimen replies which I have quoted it will be gathered that my questions were not answered off-hand, but that the answers were sometimes made through the boards of management and sometimes referred to outside authority, from which it is fair to assume that they were deliber-

ately and carefully drawn up. To the many gentlemen who have thus taken the trouble to aid in this inquiry I have already expressed my private acknowledgments, and I gladly seize this opportunity to repeat them publicly.

The evidence thus afforded is, of course, open to considerable criticism. It is not easy to prove that the rags in question are infective or that they contain any remnants of sputum, tuberculous or otherwise; but it is a somewhat striking fact that such prolonged exposure to inhalation of fine dust, whether tuberculised or not, should be so seldom associated with phthisis. The facts, however, go to support the view derived from the vital statistics of the consumption hospitals that presumably tuberculised dust is not a striking factor in the dissemination of tuberculous disease. That it is occasionally such a factor must be held as proven by the results of experimentation under Dr. Koch's own supervision. Hence such negative evidence as I have brought forward must not be regarded as in any way suggesting that the strict rule of disinfection of tuberculous sputum may be relaxed. Such a scourge as tuberculous disease of the lung must be met and stamped out at every point where we may reasonably cope with it; but at the same time it is not advisable to rest assured that its dissemination is only effected by the agency of bacillus-bearing dust, since clinical observation abundantly shows that, in those very places where dust is most likely to be tuberculised, tuberculous disease does not appear to be disseminated.—*Clifford Seale, M. A., N.B., in Lancet.*

#### SCIENTIFIC TREATMENT OF INEBRIETY.

The treatment of inebriates is invested with much mystery and superstition in the minds of the common people. Every few months the old superstition is revived and goes the rounds of the press, that in certain asylums inebriates are surfeited with spirits—everything that is eaten or drunk is mixed with spirits, until at last the spirit taste is destroyed never to return again. The only basis for this was an experiment made in Bonn, Germany, in 1863. Three inebriates were confined in a house and treated this way, by mutual consent. Two of them had delirium tremens, of which one died within a week; the other lived two months and died from paralysis. The third became insane and was sent to an asylum. The experimenter was sentenced to prison for life. No man with any practical knowledge would ever take the risk of such an experiment. No such method was ever attempted seriously, for the reason that nothing could be more certainly fatal to both the patient and the experimenter.

Another delusion is also common, that some