

No further cases have been reported since the above-mentioned improvements were made. It should be stated that the management co-operated willingly in improving the conditions.

In February and March of this year two further cases of lead poisoning were notified from a third motor-assembly plant, and investigation showed that the men concerned had also been engaged on the same process. The shortcomings in this factory were not, however, so conspicuous. The men had been employed there for three months and six months respectively, and each had previously worked at the second factory mentioned above for a period of two years. The last place of employment may therefore have contributed to their condition, but not as the sole cause.

This factory was clean, well ventilated, and not in any way overcrowded. The following defects were, however, noted :—

- (1) The men working in the curtained enclosure had a good type of respirator provided for them, but no overalls.
- (2) All washhand basins and clothes-lockers were situated in the canteen—a most undesirable location—and no soap, nail-brushes, or towels were provided. The men had been in the habit of fetching hot water for themselves from an adjoining part of the factory and washing in buckets.
- (3) It was found that food, and sometimes bottled milk, was brought into the workshop, and partaken of during the hours of work. Smoking during work was also frequent.

The management were requested to provide suitable overalls and caps, to wash them at weekly intervals, and to provide lockers both for outdoor clothing and for overalls in a separate place adjacent to the place of work. Satisfactory washing facilities, outside the canteen, with hot water, soap, nail-brushes and towels were required. A leaflet of instructions was issued to each man concerned in which was stressed the necessity of removing his overalls and thoroughly washing his hands before eating food and before leaving the factory, and the prohibition against taking food and milk into the workshop and smoking during work was explained.

A sixth case of lead poisoning was notified in October, 1938, from a motor-body factory, and the man concerned was employed in the dry-rubbing-down of motor-bodies that had received a first coating of filler paint. There was much dust on the floor from the rubbed off paint, and the dust on analysis was found to contain the equivalent of 23 per cent. of lead carbonate. The presence of lead in the paint, which was an imported one, was not stated on the label. The washing-facilities at this factory also were found to be inadequate.

Improvements effected in this case were the substitution of wet rubbing down for the dry process, and more adequate provision was made for washing. Later the firm reverted to dry rubbing down, but changed to a filler paint which does not contain lead.

The importers of the lead paint were notified of their obligations regarding the correct labelling of the containers, and were requested to inform all their customers throughout New Zealand that the paint contained lead, and that dry rubbing down, if practised, should be discontinued.

ELECTRIC STORAGE BATTERY INDUSTRY.

A case of lead poisoning was notified in October, 1938, from a factory manufacturing electric storage batteries, and a second case from the same factory in March, 1939. The factory was built in 1937, and all processes of battery-manufacture, except the making of cases, are carried on there. The Department was consulted when the factory was built, and secured satisfactory conditions. The mixing-room and pasting-room are separated from the rest of the factory, extraction apparatus is provided, and the floor and benches kept constantly wet. The washing arrangements were satisfactory, with showers, basins, plenty of hot water, soap, nail-brushes and towels. Each man was provided with two clothes-lockers—a lower one for overalls and an upper one for outdoor clothing. There was a small dining-room with table, benches, and a supply of boiling water.

There is one undesirable feature about the lay-out of this factory which was commented on at the time of the first inspection. The most direct way from the work-rooms to the lavatory and changing-room is through the small dining-room which has one door into the factory and one leading to the changing-room. The alternative way to the lavatory necessitates going outside. The works-manager was instructed to insist that all employees should go outside to the changing-room, and enter the dining-room only after removing their overalls and washing their hands. This precaution was not observed, although it was also impressed upon the employees themselves in a talk given to them in October, 1938.

Both cases of poisoning occurred in men working in the pasting-room. The investigation showed that the overalls provided were inadequate in that the upper garments were not protected. Men were wearing shirts and cardigans, which were said to be kept exclusively for working in, but there is some reason for thinking that this was not the case. More important than this, however, it was found that the dining-room was a constant right-of-way between factory and lavatories, so that men were coming there direct from the pasting-room and contaminating the floor with lead paste from their rubber boots. When the factory was inspected in March, after the second case of poisoning, dried lead paste was to be seen on the floor, on the legs of the table, on the benches, and even on the table-top. Either the same broom was used for sweeping both floor and table, or the men were sitting at the table in their working-clothes. Under these conditions the cases of poisoning were easily explained.

The management has been asked to provide more suitable overalls that will completely protect the other clothing worn, to keep the dining-room properly cleaned, and to insist absolutely that no man enters it until he has passed through the changing-room, removed his overalls and rubber boots, and washed his hands. If there is any future indication that this is not being complied with it is intended to insist on the door leading from factory to dining-room being boarded up.