

stands are equipped with exhaust connections and these are connected into an exhaust system connected to a dry-type dust collector. The sand blast rooms are similarly provided with exhaust connections and, with proper exhaust as recommended by the manufacturers, no difficulties are experienced from this source. With the wheelabrators, however, we have been having considerable amount of contamination from both the insufficient amount of air exhausted from the machines and also our inability to keep the equipment in good mechanical order to properly seal the unit to prevent dust and fume from escaping. We have had this problem under surveillance for some time, and now believe that the answer to proper control of wheelabrators is to increase the suction on the machine to 200 per cent of rating recommended by the manufacturer, primarily for the control of metallic fumes, rather than dust; to provide an additional exhaust outlet on the opposite end of the cleaning barrel and to enclose the bottom of the machine so that all entering air for exhaust purposes must come through the natural leakage around the charging door. While these corrections have not as yet been made, they are in the plan stage and we hope to complete in the very near future. At the present time we have not provided exhaust hoods or ventilation for floor chipping. This problem, however, will be studied to see if we can install some system with sufficient flexibility for the type of work we handle on these floors.

The bench chipping has probably had as much experimentation for proper exhaust in this area as any other portion of our plant. We originally started out by replacing the old wooden bench with a bench having grilles in the top upon which work was placed, and a hopper under the grille to catch the heavy dirt, with an exhaust outlet in the side of the hopper to carry off excess dust and metallic particles. This was the first step in the control of the hazard from this source. Subsequently, we improved the construction details of this type of bench and incorporated similar exhaust features. The next step was the development of an entirely new type of bench which is now in operation in one of our plants. We hope in the very near future to have the same type of bench in the other old plants of our division. This new type of bench incorporates the original grille in the top of the bench with the hopper underneath and an exhaust outlet, and also a grille in the backboard of the chipping bench in a vertical position connected into the exhaust system. The greater percentage of the exhaust air from the chipping station is taken from this rear grille, and only sufficient air through the bottom grille and hopper to prevent kickbacks in dust dropping into the hopper. According to Medical Department tests, contamination from this area has been reduced below the maximum allowable concentration of metallic contamination.

The remainder of our exhaust systems and ventilation does not apply to all of our plants. Some of our larger plants have some departments that our other plants do not have, or perhaps we should say some of these departments are not as large in some plants as in others. All of our plants have some sort of reclamation department. Here we melt out returned bearings to remove the babbitt from the brass. In this operation considerable oil smoke is given off because the returned bearings are heavily coated with grease and oil. While this type of smoke is not harmful, it is highly irritating to the men working in those areas. Therefore, it has been necessary to provide exhaust hoods over our melt-out pots, as well as an exhaust hood over the area in which the melted out bearings are thrown after removal from the melt-out pot. These melted out bearings give off considerable smoke even after removed from the pot. As previously mentioned, the extent of our exhaust in the reclamation department depends upon the size of the plant as well as the size of the reclaim operation.