

DUTCH BOY QUARTERLY

DEVOTED TO PRACTICAL AND TECHNICAL DISCUSSIONS
OF PROTECTIVE AND DECORATIVE PAINT COATINGS,
BUILDING MATERIALS AND OTHER LEAD PRODUCTS

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Retarding Bacterial Growth

A TEST of paint's sterilizing power was recently carried out in the Institute of Industrial Research at Washington, D. C. On a laboratory wall one coat of paint was applied to a small area. After drying, the painted surface and the unpainted area next to it were lightly rubbed with a different swab which had been moistened with sterile water. The moisture in each swab was then squeezed out into plates of agar sugar, a jelly-like mixture in which germs easily multiply so that little masses of them may be seen on the top after the necessary time has elapsed. Examination showed that the plate made from the unpainted area contained a positive bacterial growth. The one made from the painted area showed a negligible growth. The illustrations show the results in both cases.

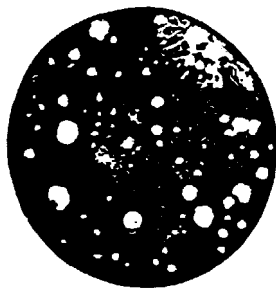


Plate I—Showing abundant bacterial growth in culture from unpainted section of wall.

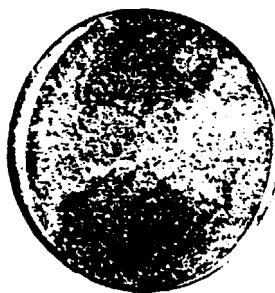


Plate II—Showing negligible bacterial growth from painted section of wall.

Then a culture of three species of germs each of a death-dealing type were mixed with a dry powder and blown upon the two surfaces—painted and unpainted. Similarly the germs in a sterile liquid were sprayed on other portions of the same surfaces. One hour later plates were made in the agar the same as before and the growths were positive though not so pronounced from the painted areas.

Next, the two surfaces were washed with soap and sterile water. Plates in agar were made an hour later. The agar containing the culture from the unpainted area showed abundant growth while the culture from the painted area showed a very little.

These tests strongly indicate that if a painted surface becomes contaminated the source of danger may be removed by washing and also that infected surfaces may be made sterile by painting. These results are probably not so much due to any germicidal properties which paint may possess, but to the fact that the old surface is covered with a clean washable film of paint.

The danger of an unpainted dingy or rough wall is that it will retain moisture a long time and that its porous nature makes it easy for floating organic matter to collect. This kind of wall cannot be effectively washed so that the two factors necessary for quick bacteria growth—moisture and organic matter cannot be removed. If a wall is covered with a good water-proof coat of paint such as produced with white-lead-and-oil, its smooth surface is easily washed and need never afford a resting place for germs. That is why every inch of surface in a hospital is painted.

Paint Under Riveted Joints

SUMMARIZING years of experience in maintaining large steel outdoor structures, an engineer recently stated that the older structures under his care have proved to be seriously lacking

was his principal point of criticism; the riveting fails to draw the component parts of the steel members into contact tight enough to prevent moisture entering and rust beginning and