Chapter 3

SUPERIORITY OF READY-MIXED PAINT

Modern prepared or ready-mixed paint is a development of comparatively recent years. In its most generally used form, it is the combination of pigments and liquids that has proved in actual service to perform most satisfactorily the work required. It is the result of many years of careful research and countless tests conducted by paint manufacturers and certain disinterested organizations.

The one outstanding characteristic of modern mixed paint is its UNIFORMITY. This is due primarily to the system of absolute control exercised throughout its manufacture. This uniformity is shown in its:

Ingredients
Consistency
Color
Weight
Quality

... is the only test of the durability of a paint in actual service; but the ... high-quality, ready-mixed paint is as far superior to the old-style, ... thumb, hand-mixed product as the Mazda bulb is superior to the ... light. Both are the result of many years' development in their ... fields along scientific lines.

... insisting on a high-quality mixed paint enables the plant super... to give better protection to his property and reduce upkeep ... the longer life of the paint coat and better general satisfaction ... in every way.

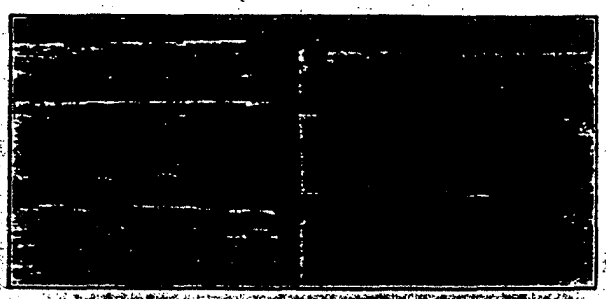
...ingle Pigment vs. Combination Pigment Mixed Paint

... conducted by paint manufacturers and other organizations have ... surface finished with a properly-balanced, combination-... will be given better protection than that afforded by a ... paint.

... combination-pigment paint may be composed of a wide variety of raw ... on its general application, it is made up of the correct per... White Lead, White Zinc, and inert material such as Asbestine, ... together with whatever coloring matter may be necessary ... proper tint.

... pigment paint,—White Lead and Linseed Oil, mixed by hand,— ... serious defects. It chalks rapidly, much too quickly to ... protection to the surface beneath. If a dried film, composed ... Linseed Oil, were examined under a microscope, it

would show open spaces between the White Lead crystals, thus producing an imperfect film, lacking many of the characteristics necessary for maximum protection. Usually a paint so composed affords a ready lodging place for dust, dirt, plant pollen and the like, which not only destroy the appearance of the finish, but shorten the life of the paint coat. Furthermore, when repainting is necessary, which usually comes more quickly than it should, costly preliminary work is frequently required to properly prepare the surface for repainting.



PANELS ON ATLANTIC CITY FENCE
Two Lower Sets of Panels are Painted with Combination Pigment Paints. Excellent Results Shown

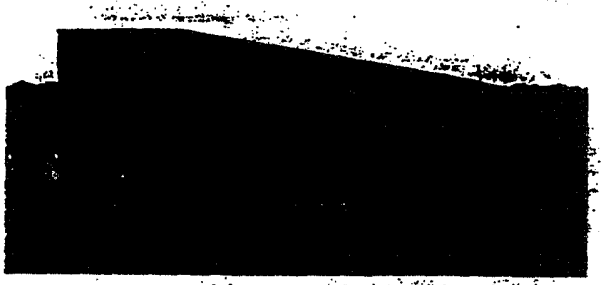
Panel on Left Painted with Single Pigment Paint; Panel on Right Painted with Combination Pigment Paint. Photograph taken after Two Years' Exposure on Pittsburgh Test Fence

White Zinc or Oxide of Zinc, when used alone, is brittle and soon cracks and chips, due to expansion and contraction of the surface under atmospheric conditions. The combination, however, of the correct percentage of White Lead and White Zinc, the two products held together by asbestine, or other inert material—which acts the same as hair in plaster—has been proved to give the best all-around service that is possible to obtain from any paint coating. The hardness of the White Zinc offsets the softness of the White Lead, and the defects of one are thus balanced by the merits of the other. Generally speaking, this is the composition of most of the high-grade prepared paints on the market, together with whatever coloring material may be required to produce various shades.

The authority for these statements is borne out by the results of tests conducted at various points throughout the country by the Educational Bureau of the Paint Manufacturers' Association of the United States with a view to determining the relative merits of various types of one-pigment vs. combination-type paints.

Inspection of Atlantic City Test Fence in March, 1909, showed that:

> "A paint made from any mixture of more than one white opaque pigment, either when used alone or in combination with small percentages of inert pigments, is far superior to any one-pigment paint. It was found that the straight white lead paints failed in every case.....Paints made with large percentages of white lead, however, gave excellent results."



View of Atlantic City Test Fence.

First inspection, made in May, 1909, of the Pittsburgh Test Fence showed that:

> "A mixture of more than one prime white pigment, whether this mixture be alone or in combination with a small percentage of inert pigment, produces a paint far superior to a paint manufactured from one pigment alone."

Second annual inspection, May 7, 1910, showed that:

> "The combination type of paint proved more durable than the single-pigment paints. They indicated in most cases very excellent wear, with a minimum of blackness and a general good condition of surface.
>
> "The Committee finds that the best white paint for general exterior use is made of white lead combined with zinc oxide and a moderate percentage of inert pigments, such as silica, asbestine, or barytes."

Inspection of the Test Fence erected at North Dakota Agricultural College, Nov. 20, 1909, showed that:

> "Mixtures of white lead and zinc oxide, properly blended with moderate percentages of reinforcing pigments, such as asbestine, barytes, silica and calcium carbonate, are most satisfactory from every standpoint, and are superior to mixtures of prime white pigments not reinforced with inert pigments." *"Paint Technology & Tests"*—H. A. Gardner.

Colored vs. White Paint

It has been proved that a paint to which has been added certain coloring material to produce the desired shade will wear from 30 to 60% better and longer than a pure white paint. This means that a surface so finished will require repainting much less frequently than if white is used. White surfaces collect dust and dirt quickly. Where the necessity for repainting of white painted surfaces comes approximately every three years, the repainting of surfaces of tinted paints would come about every five years. Light tints reflect more light than the dark ones, and for that reason a building painted with a light tint, such as gray, ivory, etc. would be much