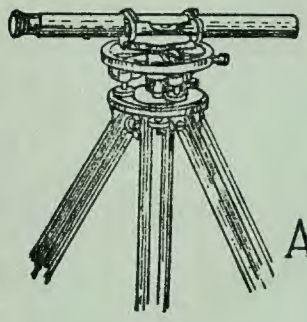

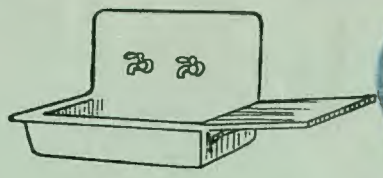

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SELECTING PAINTS FOR THE FARM

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The selection of paints is difficult for many consumers because so many types and brands are available. Each brand is claimed to be superior to others in one or more ways. Too frequently the cost is made the chief consideration by the purchaser; hence many of the well-known paint manufacturers have met the demand for low price by placing second and third quality paints on the market. To make a paint that will sell at a low price, inferior materials must be used. Such materials are certain to make the paint in which they are used the most expensive that a consumer could buy. It is the purpose of this news letter to help the consumer select suitable high quality paints for specific uses.

Paint Ingredients

Oil paints consist of a solid (the pigment) and a liquid (the vehicle). Pigments for house paints are classified as opaque and transparent. Opaque white pigments most suitable for outside oil paints are white lead, zinc oxide, and titanium dioxide. White lead is the only one of the three which can safely be used alone in an oil paint. Titanium dioxide is a brilliant white, but, to retard excessive chalking, must be used with zinc oxide which is too brittle to use alone.

Transparent pigments, so-called because practically colorless in oil, are used chiefly to reduce costs. When used to excess, they lower both the durability and the hiding power of paint. Common transparent pigments are: calcium carbonate (chalk), calcium sulphate (gypsum), aluminum silicate (china clay), magnesium silicate (asbestine, talc), barium sulphate (barytes and blanc fixe), and silica (silex, sand). Small amounts of these transparent pigments will do no harm, but unfortunately they are found in large quantities in the cheaper paints. To obtain tints or light colors, pigments ground in oil are added to the white paint.

The best vehicle for outside oil paint is pure raw linseed oil, turpentine, and liquid drier. Mineral spirits may be substituted for turpentine. Paints in which the vehicle is a non-drying vegetable oil, fish oil, benzol (benzene), kerosene, gasoline, naphtha (benzine), water, or emulsifying agent should be avoided as they are likely to prove harmful to the paint.

Exterior House Paints

A white lead and oil paint, composed of approximately 71 per cent basic carbonate white lead and 29 per cent vehicle, makes a good white paint and a suitable base for tints. The vehicle should be 87 per cent pure raw linseed oil and 13 per cent turpentine and drier.

A slightly harder paint can be obtained by mixing zinc oxide with the white lead, but the total pigment should not consist of more than 20 per cent of zinc oxide for Minnesota climate.

For an extra white paint one may use for the pigment approximately 7 per cent titanium dioxide, 25 per cent zinc oxide, 58 per cent basic carbonate white lead, and 10 per cent barium sulphate.

These recommendations for exterior house paints follow closely the specifications of the Federal Government for its purchases and are for the finish coat on wood.

Barn Paints

While red is not necessarily the preferred color for barns or other farm buildings, it is widely used. This is because a good quality, red barn paint will cost less and last longer than high quality white or light colored paints. It is the iron (ferric) oxide pigment in red barn paints that gives them their color and durability. The pigment should contain 30 per cent or more of iron oxide, while the balance may be one or more of the transparent pigments.

Venetian red, a mixture of finely divided iron oxide and calcium sulphate, is used as a red barn paint and is satisfactory if the iron oxide content is 30 per cent or more of the total pigment. Any good house paint can also be used effectively on barns.

Aluminum Paints

There are two common types of aluminum paints available, aluminum flakes in a specially treated linseed oil for use on wood, and aluminum flakes in a long oil varnish for use on wood or metal. In either type approximately 2 pounds of aluminum flakes are mixed with one gallon of vehicle. Aluminum paint makes a good primer for wood, but requires extra paint to hide the aluminum when used under light colors. Aluminum paint can be used as the body and finish coats on wood or metal, but it should not be used as a primer for metal.

Paints for Metals

Use of the right priming coat on metal is very important to prevent rusting. Red lead and oil is an excellent primer for structural steel, farm implements, and other corrosive metals. It can be purchased as a powder, as a paste, or ready to use. In paste form it tends, in time, to harden in the container, while the powder requires mixing several days in advance of using in order completely to wet the lead particles.

Another suitable primer for metal, galvanized iron in particular, is zinc dust paint, consisting of 80 per cent zinc dust and 20 per cent zinc oxide mixed with a vehicle of 90 per cent raw linseed oil, and 10 per cent thinner and drier. New galvanized sheet metal should be allowed to weather for about six months before applying the primer.

For body and finish coats on metal, not subject to abrasion, any good house, barn, or aluminum paint can be used. A good farm implement paint, suitable for tractors and general farm machinery, should be a pigment in a long oil varnish, elastic and highly resistant to moisture, heat, and abrasion.

Masonry Paints

Good dense masonry materials will not require paint to make them durable, but where color is wanted, or where masonry surfaces are somewhat porous, paint may be used. For exterior masonry materials such as concrete, stucco, common brick, and soft tile, portland cement paint is most satisfactory. It consists of portland cement ground with pigment and other materials, mixed with water just before applying. It should be applied to surfaces while they are damp (not wet), and should be cured for several days, being kept wet by sprinkling with water. If the masonry should later become damp, the portland cement paint will not be injured, whereas an oil paint would peel off if moisture got in behind the film.

Oil paints may be used on concrete floors and other masonry surfaces provided moisture does not enter from behind. Unweathered surfaces should be treated with a solution of 3 pounds of zinc sulphate in one gallon of water to neutralize the alkali. This should be brushed on, allowed to dry 48 hours, and brushed off. The priming coat under the oil paint should contain some spar varnish to seal the surface. For the finish coat any good grade of oil paint, either flat or gloss, may be used. On concrete floors a good grade of porch and deck paint will be satisfactory.

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