PENNSYLVANIA RAILROAD COMPANY.

PHILADELPHIA, BALTIMORE & WASHINGTON RAILROAD COMPANY.
NORTHERN CENTRAL RAILWAY COMPANY.
WEST JERSEY & SEASHORE RAILROAD COMPANY.

No. 53.

Instructions in Regard to Mixing P. R. R. Freight Car Color.

From the date of this circular, the standard practice for mixing P. R. R. freight car color will be as follows. This practice must be followed in all places where this color is used, except where special permission to deviate therefrom, has been obtained from the proper authority.

FOR FIRST COAT.

P. R. R. standard freight car color paste	32 pounds.
Raw linseed oil	9 pints.
Japan	3 pints.

FOR SECOND COAT.

P. R. R. standard freight car color paste	32 pounds.
Raw linseed oil	12 pints.
Japan	3½ pints.

For those who prefer to mix by weight, the following formulas are given, which lead to the same results as those given above, namely,

FOR FIRST COAT.

P. R. R. standard freight car color paste	32 pounds.
Raw linseed oil	8½ pounds.
Japan	3 pounds.

FOR SECOND COAT.

P. R. R. standard freight car color paste	32 pounds.
Raw linseed oil	11¼ pounds.
Japan	3½ pounds.

These formulas are for use during the summer season and during good weather, or in shops where the protection is such that drying can be obtained in 24 hours. In the winter or during adverse weather, or in shops where the facilities will not secure drying in 24 hours, the amount of oil may be diminished, and the amount of japan may be increased, but the total amount of oil and japan to the required amount of paste, must be the same. In no case should a japan be used, which contains over 60 per cent. of its weight of volatile matter. Also the amount of japan that replaces oil, should not exceed the amounts given in the formulas by more than three pints or pounds. In some cases where the facilities for drying are very poor, or when the weather is cold and damp, the formula for first coat may be modified by using one pint, or $\frac{9}{10}$ of a pound, of turpentine, in addition to the other constituents.

The formulas given above lead to the following percentages of constituents in the paint ready for spreading, namely,

FIRST COAT.

Pigment	55.2
Binding material	40.7
Volatile matter	4.1

SECOND COAT.

Pigment	51.3
Binding material	44.2
Volatile matter	4.5

The diminution in the pigment in the second coat, is for the sake of a little better gloss.

In the dried paints, the following proportions by weight of constituents, result from the formulas given above, namely,

FIRST COAT.

Pigment	57.5
Binding material	42.5

SECOND COAT.

Pigment	53.7
Binding material	46.3

For those who deem it essential to use boiled oil instead of raw oil, it is recommended to replace part of the japan with boiled oil. The total amount however, of oil and japan in proportion to the pigment, should be the same.

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OFFICE OF THE GENERAL SUPERINTENDENT MOTIVE POWER,
Altoona, Pa., November 11th, 1902.