

UNITED STATES PATENT OFFICE.

ALONZO W. PORTER, OF NEW YORK, N. Y.

IMPROVEMENT IN THE METHODS OF PREPARING AND PUTTING UP ILLUMINATING-OILS SO AS TO MARK THEIR QUALITY.

Specification forming part of Letters Patent No. **146,778**, dated January 27, 1874; application filed January 15, 1874.

To all whom it may concern:

Be it known that I, ALONZO W. PORTER, of the city, county, and State of New York, have invented an Improved Method of Marking and Putting up the Safe or Non-Explosive Illuminating-Oils, of which the following is a specification:

My invention relates to a new and improved method of marking and putting up the low-gravity or safe and non-explosive varieties of illuminating-oils; so as to distinguish the same from the light-gravity or explosive varieties, or to distinguish different varieties or gravities of the safe oils from each other.

There are many varieties of illuminating-oils in the market, varying from each other in gravity, the lighter oils being exceedingly volatile at ordinary temperatures, and giving off vapors which form explosive mixtures with the atmospheric air, rendering such oils unsafe and wholly unfit for use, while the heavier oils, which do not evaporate at ordinary temperatures, are admirably adapted to illuminating purposes.

My invention has for its object to so mark the heavier oils, and the various grades of said oils, and pack the same, that said oils may be readily recognized and distinguished from the light or unsafe oils at sight, and the different gravities of the safe oils distinguished from each other at once without difficulty, to serve as a safeguard to the public against fraud in the substitution of a dangerous for a safe gravity of illuminating-oil, and to enable the unlearned to distinguish the safe brands from the unsafe, whether in the original packages or not; and it consists in giving to the heavy illuminating-oils, or each variety or gravity of the same, a distinct color or tint, by which it may be readily known, and in putting up said safe or non-explosive illuminating-oils in packages colored on the outside to correspond with the gravity or color of the oil within, so that its character and gravity may be recognized without breaking the packages.

In practice, I make use of all coloring matters soluble in the ordinary illuminating-oils,

such as annatto, turmeric, Prussian blue, the aniline colors, &c., which I combine with the oils by digesting, either cold or with the aid of heat, as occasion may require. In coloring the oils I employ the coloring matter in such proportions as to give the oil a decided tint, and I usually give each particular gravity a separate color to distinguish it from the others, preferring the light colors for the lighter grades, and the darker for the heavier grades of the oil; but this order may be reversed, if desired, or the colors employed indiscriminately.

The different grades may also be distinguished by different shades or tints of the same color, in which case I prefer to employ the tints in the order above mentioned—viz., the light shades or tints for the lighter oils, &c.

I put up the oil in bottles, cans, barrels, &c., and indicate the color or gravity of the oil within by painting or coloring the same to correspond with the color or gravity of the oil within, or covering it with paper or other material properly colored.

What I claim is—

1. As a new article of manufacture, a non-explosive illuminating-oil so marked as to be readily distinguished from the explosive oils, substantially as herein described.

2. The method herein described of distinguishing different gravities of illuminating-oils by giving to each a separate and distinct color, substantially as herein described.

3. As new articles of manufacture, illuminating-oils so colored as to distinguish and mark the different grades or gravities of the safe or non-explosive oils, substantially as herein described.

4. The method of marking the gravity of illuminating-oils by coloring the packages containing said oils, so as to indicate their character and distinguish them from each other, substantially as herein described.

A. W. PORTER.

Witnesses:

B. J. McCAFFERTY,
W. B. CARRINGTON.