

UNITED STATES PATENT OFFICE.

DAVID MANSFIELD, OF OSHKOSH, WISCONSIN.

IMPROVED BURNING-FLUID.

Specification forming part of Letters Patent No. 55,880, dated June 26, 1866.

To all whom it may concern.

Be it known that I, DAVID MANSFIELD, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented a new compound which I denominate a "Non-Explosive Burning-Oil;" and I do hereby declare that the following is such a full, clear, and exact description thereof as will enable others skilled in the art to understand my invention.

My object is to make a burning-fluid for all purposes of illumination, which shall not generate an explosive gas nor smoke, which shall not be too highly inflammable, and which is adapted for use in lamps with or without chimneys.

This burning-fluid is composed of the following ingredients, viz: alcohol, naphtha, white-oak bark, alkanet-root, slippery elm, gum-camphor, saltpeter, rock-salt.

The naphtha constitutes the base, and is used in greater or less relative proportions, according to its specific gravity. The alcohol, gum-camphor, and saltpeter are used to produce a strong light, which will be soft and pleasant to the eye. The alkanet-root and the white-oak bark are used to render the fluid non-explosive and to give a pleasant and agreeable odor to it while burning. The slippery-elm bark gives body to the fluid, and makes it burn steady.

I do not desire to limit my invention to any

definite proportions of the above-named ingredients, as these proportions will vary according to their strength and quality.

The following proportions may be adopted in making, say, forty gallons of the fluid: alcohol, one quart; naphtha, of 64° gravity, forty gallons; white-oak bark, four and a half pounds; alkanet-root, two and a half pounds; slippery elm, two and a half pounds; gum-camphor, four ounces; saltpeter, four ounces; rock-salt, four pounds.

I first add about six gallons of naphtha to the ingredients, and allow the compound to stand for several hours; after which thirty-four gallons of naphtha are added, and the whole filtered, making forty gallons.

The quantities of barks used will depend upon the quality of the naphtha. If this substance is very heavy, less bark will be used; if very light, more bark will be necessary.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A burning-fluid for illuminating purposes, which is composed of the several ingredients mixed together in about the proportions herein mentioned.

DAVID MANSFIELD.

Witnesses:

H. B. HARSHOW,
J. C. HUGGINS.