## UNITED STATES PATENT OFFICE.

DANIEL J. BROWNE AND CYRUS W. BALDWIN, OF BOSTON, MASSACHUSETTS.

## IMPROVED MODE OF LUBRICATING PACKING OF PISTONS, &c.

Specification forming part of Letters Patent No. 45,136, dated November 22, 1864.

To all whom it may concern:

Be it known that we, DANIEL J. BROWNE and CYRUS W. BALDWIN, both of the city of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and Improved Mode of Lubricating Machinery, hereinafter described, being especially applicable to the packing of caloric engines and pumps, as well as to various parts of machines subject to abraison or wear.

The substance constituting the packing of an engine or pump, or any part of a machine designed to be lubricated, may consist of rawhide, leather, paper, canvas, or other cloth. The substance is first filled or coated with some good adhesive varnish or paint, applied with a brush or other convenient means, and as soon as said substance is partially stiffened or dry, it is dusted over with finely-pulverized plumbago, steatite, or tale, employed separately or mixed in variable proportions, and immediately after rubbed or burnished gently at first and subsequently very hard, with buckskin, a wad of soft linen, or with the palm of the hand, until the desired degree of smoothness or firmness is obtained.

The varnish or vehicle preferred by the inventors for the above-named purposes is similar to the soluble elastic paste proposed to be employed in the manufacture of enameled leather, patented by Francis Loughurst and Albert L. Murdock, May 3, 1864, which may be composed of the following named materials mixed in whole or in part in variable propor-

tions, boiled, strained, and settled, according as the quality, climate, or season may require—say about thirty per cent., by weight, each of naphtha, candle-pitch, and rosin or pitch; about one and one-half per cent., by weight, each of sulphur, litharge, gutta-percha, and india rubber, and about four per cent. by weight, of linseed-oil.

What we claim as our invention, and desire

to secure by Letters Patent, is-

To coat over or infuse into rawhide, leather, paper, and canvas or other cloth employed for the packing of caloric engines and pumps, as well as the parts of machines subject to abrasion or wear, with a good adhesive varnish or paint, and when said packing and parts of machines are partially stiffened or dry, to dust and further coat them over with finely-pulverized plumbago, steatite, or tale, immediately afterward rubbing or burnishing them to the desired degree of smoothness or firmness required, substantially as and for the purposes herein described.

Among the advantages claimed by this invention are durability, protection from abrasion, moisture, and a considerable degree of heat when applicable to the packing of caloric engines and pumps, as well as to various

parts of machines.

D. JAYE BROWNE C. W. BALDWIN.

Witnesses:

DANIEL WOODWARD, DANIEL SHARP.