## UNITED STATES PATENT OFFICE.

ARCHIBALD McNICOL, OF YPSILANTI, MICHIGAN.

## IMPROVEMENT IN CEMENTS FOR RENDERING LEATHER WATER-PROOF.

Specification forming part of Letters Patent No. 153,680, dated August 4, 1874; application filed July 17, 1874.

To all whom it may concern:

Be it known that I, ARCHIBALD McNicol, of the city of Ypsilanti, county of Washtenaw and State of Michigan, have invented a certain compound called "McNicol Cement," to be used instead of blacking, oil, or gum in rendering leather impervious to water, and also to be used instead of stitching, or any of the various cements now in use, for cementing together separate pieces of leather.

This invention relates to that class of compounds used for rendering leather, and especially boots and shoes, impervious to water, and also to that other class of compounds used for cementing leather; and it consists of a composition formed by dissolving one part of india-rubber with one part of gutta-percha and ten parts of balata, in sufficient chloroform to render the compound of the consistency of

common molasses.

To prepare the McNicol cement, take a bottle or other vessel that can be tightly closed, and after putting in the india-rubber, guttapercha, and balata, add a small quantity of chloroform, and as the mass dissolves add chloroform to bring it to the required consistency.

To render leather impervious to water, rough the grain, and apply a coating of the McNicol cement. This will render it completely waterproof, and still leave it as pliable as before the application; and in case of split leather

it will give a surface as smooth as the grain of ordinary leather, and give it greater strength. To cement pieces of leather together, skive each piece of leather to a wedge-like edge, ap-

ply the McNicol cement to both pieces, and after lapping them together pound slightly with a hammer or mallet to bring the pieces into close contact, and give ten minutes to

thoroughly dry.

I claim as my invention—

A compound of india-rubber, gutta-percha, and balata, dissolved in chloroform, substantially as and for the purposes hereinbefore specified.

ARCHIBALD McNICOL.

Witnesses:

J. WILLARD BABBITT, GEORGE R. ANDERSON.