UNITED STATES PATENT OFFICE.

G. CONKLING, OF CONKLINGSVILLE, NEW YORK, ASSIGNOR TO CAROLINE A. CONKLING, OF SAME PLACE.

IMPROVED PROCESS FOR RENDERING LEATHER WATER-PROOF.

Specification forming part of Letters Patent No. **49,826,** dated September 5, 1865.

To all whom it may concern:

Be it known that I, G. CONKLING, of Conklingsville, in the county of Saratoga and State of New York, have invented a new and Improved Process for Rendering Leather Impervious to Water and Increasing its Durability; and I do hereby declare that the following is a full, clear, and exect description of the same.

The object of this invention is to treat leather with rosin, linseed-oil, beeswax, or with a composition of such materials, or with any other suitable material or composition, so that the air and moisture contained in the pores and cells of the leather are expelled and replaced by said material or composition, and that by these means a most durable and perfectly water-proof leather is produced.

The invention consists in dipping the leather, manufactured or unmanufactured, repeatedly into heated rosin, linseed-oil, or other material, at a temperature of about 175°, (more or less,) and suspending it in an atmosphere heated to about the same temperature, in such a manner that the leather is completely saturated with said heated liquid and rendered more durable and impervious to water.

To enable those skilled in the art to fully understand and use my invention, I will proceed to describe it.

The material which I find to answer my purpose perfectly well consists in a composition made of rosin, beeswax, and linseed-oil. This composition I heat in a water-bath—that is, I place the vessel containing the composition into another vessel, filled with water, similar to a glue-pot, and by heating the water the composition becomes heated to the desired temperature. By the use of the water-bath I am enabled to keep the temperature of the composition within such limits that all danger of burning the leather is obviated. I fill the vessel about half full with the composition, and when the same has been brought to the desired temperature—say about 175°—I introduce the leather, which may be either manufactured or unmanufactured. By the heat the air and moisture contained in the cells and pores of the leather are expelled, and the heated liquid takes their place and completely saturates the leather. In order to accomplish this object I raise the leather repeatedly out of the liquid and suspend it for a short time in the heated atmosphere in the upper part the vessel to give the liquid time to penetrate the leather, and after this the surface of the leather is rubbed with a piece of cloth or other suitable material, and thereby the surplus liquid is completely removed and the surface is rendered smooth and clean. I do not confine myself, however, to this particular method of heating the composition or the atmosphere to which the leather is exposed. The same object can be accomplished in various ways.

By this process the leather is rendered perfectly impervious to water, and it gains largely in durability, and my process is equally applicable to leather in the manufactured and in the unmanufactured state.

I do not claim as my invention the use of a composition of rosin and linseed-oil, or of any other particular substance for rendering leather water-proof. Neither do I claim broadly the application of such composition or substance to leather while heated; but

What I claim as new, and desire to secure by Letters Patent, is—

The within-described process of dipping the leather, either manufactured or unmanufactured, into heated liquid at a temperature of about 175°, and suspending it in an atmosphere heated to about the same temperature, substantially as and for the purpose specified.

GUNTON CONKLING.

Witnesses:

W. HAUFF,

JAMES LAIRD.