

J. W. Smith,

Shoe Sole.

N^o 24,180.

Patented May 24, 1859.

Fig. 1.

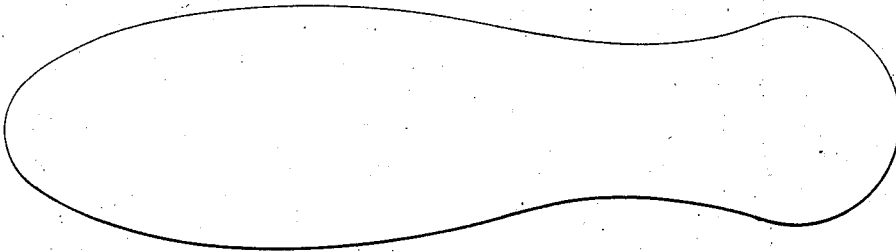


Fig. 2.



Witnesses.

*Chas. Everett
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Inventor.

John W. Smith

UNITED STATES PATENT OFFICE.

JOHN W. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO HIMSELF, AS
WALTER W. BERRY, OF BALTIMORE, MARYLAND.

WATERPROOF SOLE.

Specification of Letters Patent No. 24,180, dated May 24, 1859.

To all whom it may concern:

Be it known that I, JOHN W. SMITH, of the city of Washington, in the District of Columbia, have invented a new and useful
5 Improvement in the Manufacture of Waterproof Inside Soles for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying
10 drawings, making part of this specification, in which—

Figure I represents a plan view of the sole and Fig. II a vertical section.

My invention relates to improvements in
15 the manufacture of waterproof inside soles for boots or shoes whereby an important economical result is realized.

I prepare a composition of sixty-five parts by weight of coal tar, twenty parts of asphalt, ten parts of sulfuric acid of commerce, and five parts of pulverized marble dust, whiting or gypsum, by thoroughly mixing the coal tar and asphalt, the former at boiling heat. When in a state of perfect solution
25 a sample is set aside for the purpose of ascertaining its consistency when cold. It should be of the consistence of vegetable tar at 60° F. If too thin add asphalt, if too thick add coal tar. When the mass is partly
30 cooled add the sulfuric acid, a very little at a time, stirring it in thoroughly all the time. If found to be too thick after adding the acid, it can be tempered by adding coal tar until it is sufficiently softened. When ready

to use the composition mix in pulverized 3- marble dust, whiting or plaster until the mass has done effervescing. This neutralizes the effect of the sulfuric acid upon the material upon which the compound is to be spread, which otherwise might be materially
40 injured. The acid destroys the offensive odor of the coal tar.

I make the soles by spreading a thin layer of the compound above described (*a* Fig. II) upon a sheet of coarse paper (*b*).
45 When it is hard, it is cut out in proper form by any convenient means, and cotton flannel (*c*) is pasted on the side opposite to that on which the compound is placed and lapped over the edges. The sole is finished by pasting a piece of paper *d* over the composition
50 to form the bottom of the sole.

I am aware that soles have been made of india rubber covered with cloth but such I do not claim. But,
55

What I do claim and desire to secure by Letters Patent as a new article of manufacture is—

The waterproof inside sole when constructed of the compound above described, placed between two sheets of paper in the
60 manner herein set forth.

In testimony whereof I have signed my name to this specification.

JOHN W. SMITH.

In the presence of—
CHAS. EVERETT,
W. CROSSFIELD.