No. 686,191.

Patented Nov. 5, 1901.

W. H. BACHE.
COVERING FOR ROOFS.
(Application filed Apr. 10, 1901.)

(No Model.)

Fig.1.

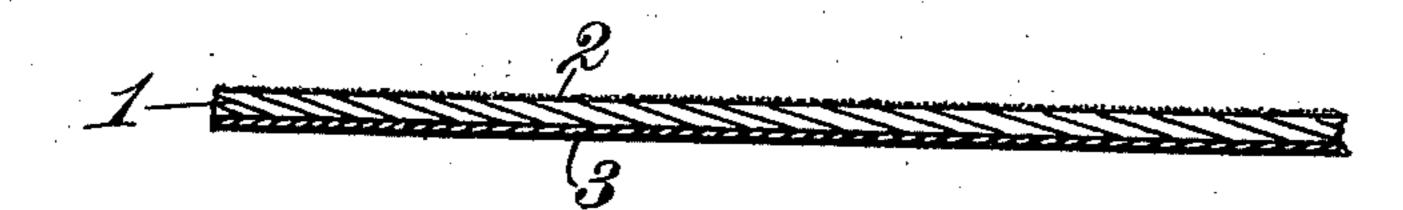
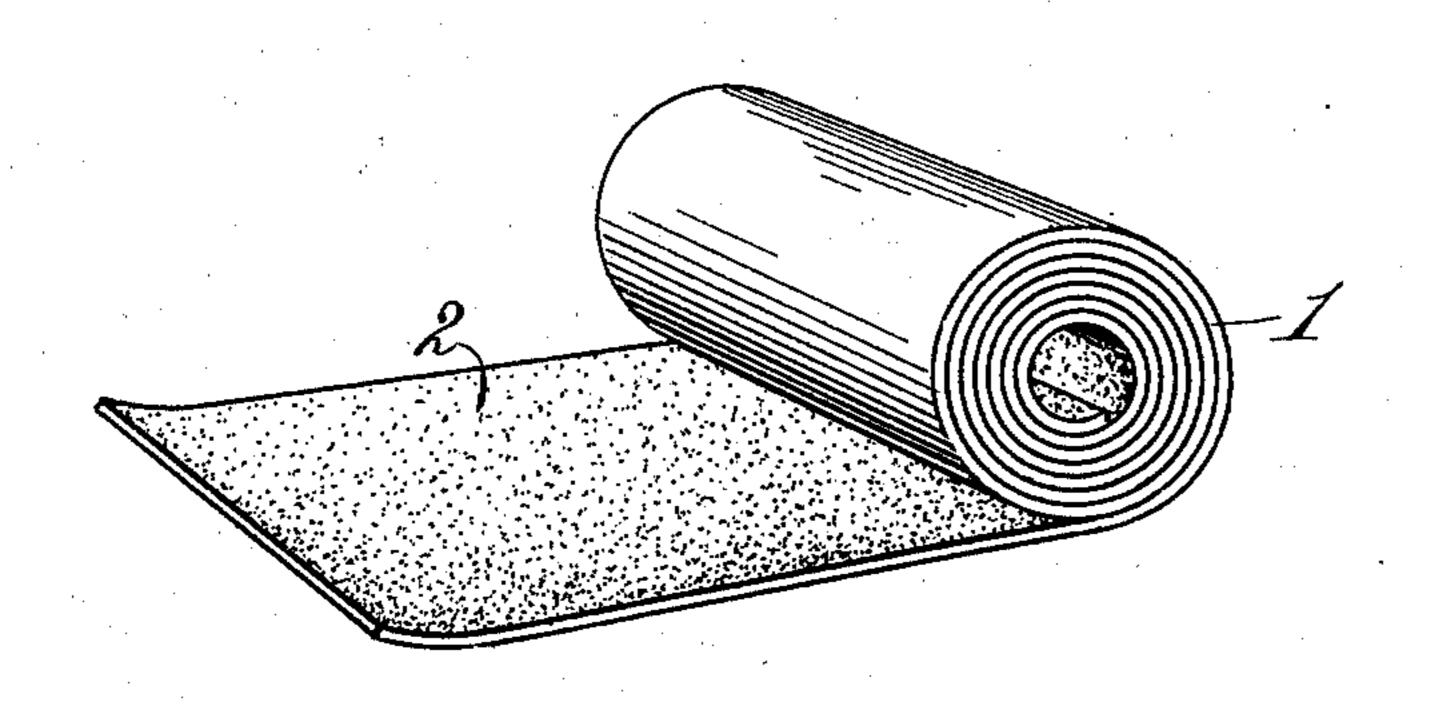


Fig. 2.



Witnesses.
Abut Grant.

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Atty.

## United States Patent Office.

WILLIAM H. BACHE, OF BOUNDBROOK, NEW JERSEY.

## COVERING FOR ROOFS.

SPECIFICATION forming part of Letters Patent No. 686,191, dated November 5, 1901.

Application filed April 10, 1901. Serial No. 55,199. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BACHE, a citizen of the United States, residing at Boundbrook, in the county of Somerset and State of New Jersey, have invented new and useful Improvements in Coverings for Roofs, of which

the following is a specification.

This invention relates to a covering for roofs, and has for its object to provide an improved roof-covering adapted to be made and finished completely at the factory in readiness to be applied to a roof and capable of being rolled up and transported any distance without injury or deterioration, said covering when put in place on a roof being waterproof and proof against the action of the elements without and against the action of acid fumes and gases from within.

To these ends my invention consists in an improved roof-covering formed of the materials and in the manner hereinafter fully described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a sectional view of a piece of my improved roof-covering, and Fig. 2 is a perspective view showing the roof-covering rolled up in shape for transportation.

In manufacturing my improved roof-covering I take a bolt of cloth or wool felt or paper and saturate the same with the materials commonly employed for the purpose—as, for example, with petroleum residuum or bitumen; 35 but I incorporate with said ingredients a quantity of plumbago. The sheet is then coated with said compound, rendering it entirely waterproof and preventing it from cracking in cold weather and melting and running off 40 in a hot climate. The sheet thus saturated and coated is coated on one side with fine sand heated to a high temperature, and, if desired, the sand may be rolled to cause it to securely adhere to the sheet. The other side 45 of the sheet is coated with plumbago. The sheet thus formed may be rolled up and can safely be transported any distance without injury to or deterioration of the covering. The sheets when they leave the factory are in 50 readiness to be placed upon a roof and after having been secured in place need no further treatment of any kind whatsoever. In put-

ting the roof-covering in place the sanded side is disposed outwardly or uppermost and operates to render the covering fireproof and 55 protects it against the wearing action of the elements. The coating of plumbago on the under side of the covering renders the latter proof against the action of acid fumes and gases arising from beneath the roof and tends 60 to insulate the covering from the heat.

Referring to the drawings, the numeral 1 indicates a sheet of felt or paper saturated and coated as above described and provided on one side with a coating of fine sand 2 and 65 on the opposite side with a coating of plumbago 3. After the sheet has been saturated and coated on its sides with sand and plumbago, as set forth, it is rolled up into compact cylindrical form, as shown in Fig. 2 of the 70 drawings, the sanded side preferably disposed innermost, when it is in readiness for transportation and for being placed in position on a roof.

I am aware that roofs have heretofore been 75 covered with felt and paper and after the covering has been secured in place has been coated with successive layers of waterproofing material. I am also aware that roof-coverings—such, for example, as paper saturated 80 with coal-tar or similar substances—have been made up into rolls, and thus shipped in readiness to be placed on a roof; but so far as I am aware none of these ready-prepared coverings has proved satisfactory owing to the volatile 85 nature of the ingredients with which they are saturated or the stickiness of the substance which prevents the sheet from being safely unrolled without tearing the covering and also owing to the fact that when exposed to 90 the heat of the sun the material will melt and run.

My improved covering can be tightly rolled up and owing to the coating of plmbago on one side will not stick and can be freely and 95 easily unrolled. Furthermore, when the covering is unrolled it is immediately in readiness to be tacked in place on the roof and requires no further treatment. It is proof against the heat of the sun, the action of the 100 elements, changes of temperature, and fire-proof on the outside and on the inside resists the action of acid fumes and gases and heat arising from within.

Having described my invention, what I claim is—

1. As a new article of manufacture, a roof-covering comprising a sheet of flexible material impregnated with a waterproof compound, said sheet being coated on one side with sand and on the other side with plumbago.

2. As a new article of manufacture, a roofcovering comprising a sheet of fibrous material impregnated with a bituminous compound

intermixed with plumbago, said sheet being coated on one side with sand and on the other side with plumbago.

In testimony whereof I have hereunto set 15 my hand in presence of two subscribing witnesses.

WILLIAM H. BACHE.

Witnesses:

S. S. BACHE, WM. CORNELL.