

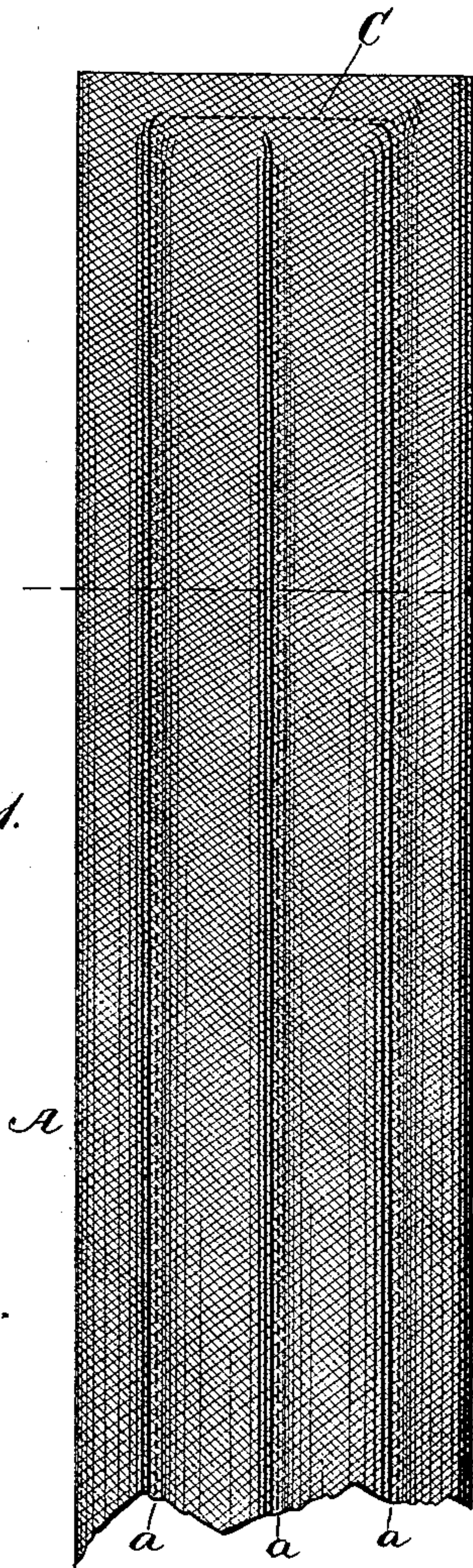
(No Model.)

G. BECK.  
LAMP WICK.

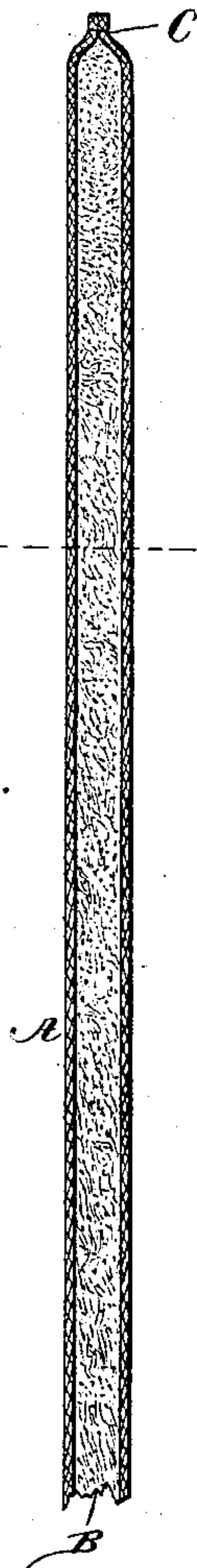
No. 253,666.

Patented Feb. 14, 1882.

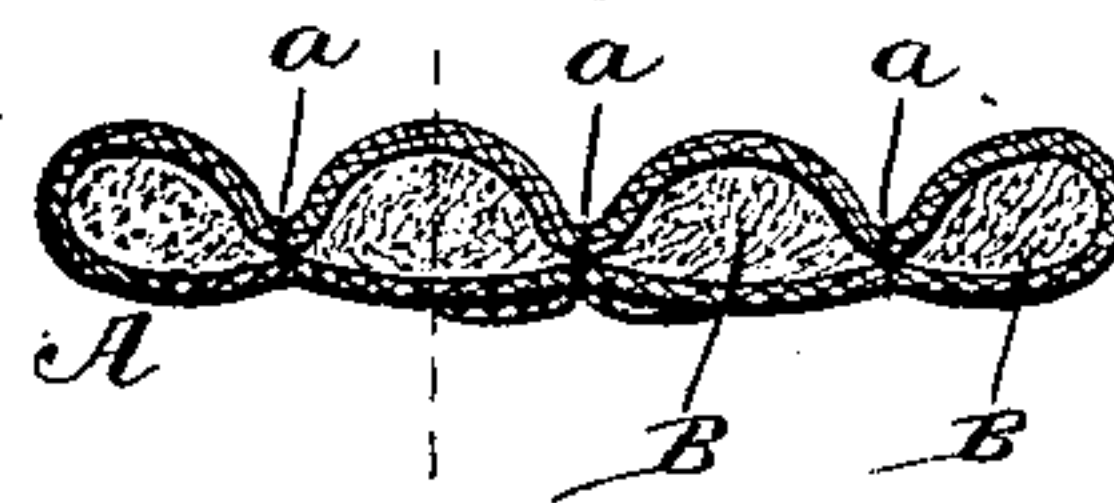
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses.*

*Jas. C. Hutchinson.*

*J. A. Rutherford.*

*Inventor.*

*Gerhard Beck,*

*by James L. Norris,*  
 *atty.*



# UNITED STATES PATENT OFFICE.

GEBHARD BÈCK, OF WACO, TEXAS, ASSIGNOR OF ONE-HALF TO GEORGE D. STREETER, OF SAME PLACE.

## LAMP-WICK.

SPECIFICATION forming part of Letters Patent No. 253,666, dated February 14, 1882.

Application filed September 9, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, GEBHARD BÈCK, a citizen of Germany, residing at Waco, in the county of McLennan and State of Texas, have  
5 invented new and useful Improvements in Lamp-Wicks, of which the following is a specification.

The object of this invention is to produce an improved non-combustible permanent lamp-  
10 wick, and relates more especially to an improvement upon the lamp-wick for which Letters Patent were granted to me April 8, 1879, No. 214,085, wherein the lamp-wick is composed of one or more layers of parallel threads  
15 of fine-spun glass inclosed in textile material, the whole being sewed together by a series of parallel longitudinal stitches.

The improvement consists in forming the lamp-wick of one or more layers of mineral  
20 wool inclosed in a textile material, the whole being sewed together by a series of parallel longitudinal stitches.

As is well known, mineral wool is the slag from a blast-furnace blown into fibers by a jet  
25 of steam or air, and consists essentially of a double silicate of alumina and lime, the composition of which varies much according to the nature of the earthy matters in the ore and the composition of the flux. Its color is  
30 generally opaque white streaked with blue, green, or brown, and resembles asbestos.

Prior to my invention a non-combustible lamp-wick has been made of mineral wool mixed with a refractory cement—such as soluble glass—in the proper proportion to form a  
35 plastic mass, which is then pressed or molded into the required shape. These said non-combustible lamp-wicks are usually made in the form of short heads, which fit the mouth of  
40 the wick-tube, and which rest upon a packing of cotton, by means of which the burning-fluid is raised to the non-combustible head. It has been proposed, however, to extend these refractory wicks through the wick-tube into the  
45 oil-reservoir of the lamp; but practically a wick of such character is of but little value, since the cement employed tends to diminish to too great an extent the capillarity of the wick. Hence the difference between such lamp-  
50 wick and one made in accordance with my invention will be apparent, since I employ no cement, but simply inclose the mineral wool in a textile fabric and secure the same by rows of parallel stitches, thus protecting and holding

the mineral wool without cement, and at the  
55 same time providing a covering or envelope which serves as an auxiliary to the inclosed filaments.

In the drawings, Figure 1 is a side view of a lamp-wick made in accordance with my in-  
60 vention. Fig. 2 is a longitudinal section through the same, and Fig. 3 is a transverse section.

A flat layer or layers of the mineral wool, of the desired length of the wick, is placed be-  
65 tween some textile fabric A A—by preference cotton goods—and the whole then sewed together by the longitudinal stitching *a a*, so as to form parallel seams at short distances apart. For thus sewing the wick I prefer to employ  
70 the well-known chain-stitch, although other form of stitches can be used. A wick is thus formed with a series of parallel channels, each of these inclosing a body, B, of the mineral wool. This wick can be used in lamps like  
75 the ordinary cotton or other fabrics, either flat or tubular. The upper end of the wick is cut off straight and at right angles to the length of the wick, and may be provided with one or  
80 more cross-seams, C, to hold the inclosed material of the wick more firmly in the proper position.

After the wick has been placed in the wick-tube of a lamp and then lighted at its upper  
85 end, the cotton above the wick-tube will rapidly burn off, thus exposing the mineral wool, which, by reason of its capillarity, together with the lower part of the wick being immersed in the oil, will give a sufficient quantity of the  
90 fluid to support combustion and give a good light.

As the mineral wool is non-combustible, the wick will only need an occasional slight rubbing or brushing to keep it in the proper  
95 condition for burning.

What I claim is—

A lamp-wick consisting of one or more layers of mineral wool inclosed in a textile material, the whole being sewed together by a series of parallel longitudinal stitches, substan-  
100 tially as described.

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

GEBHARD BÈCK.

Witnesses:

E. W. KRAUSE,  
W. K. TOWNSEND.