

No. 858,848.

PATENTED JULY 2, 1907.

J. E. ALLISON.  
HEATING PAD.

APPLICATION FILED APR. 30, 1906.

2 SHEETS—SHEET 1.

FIG. 1.

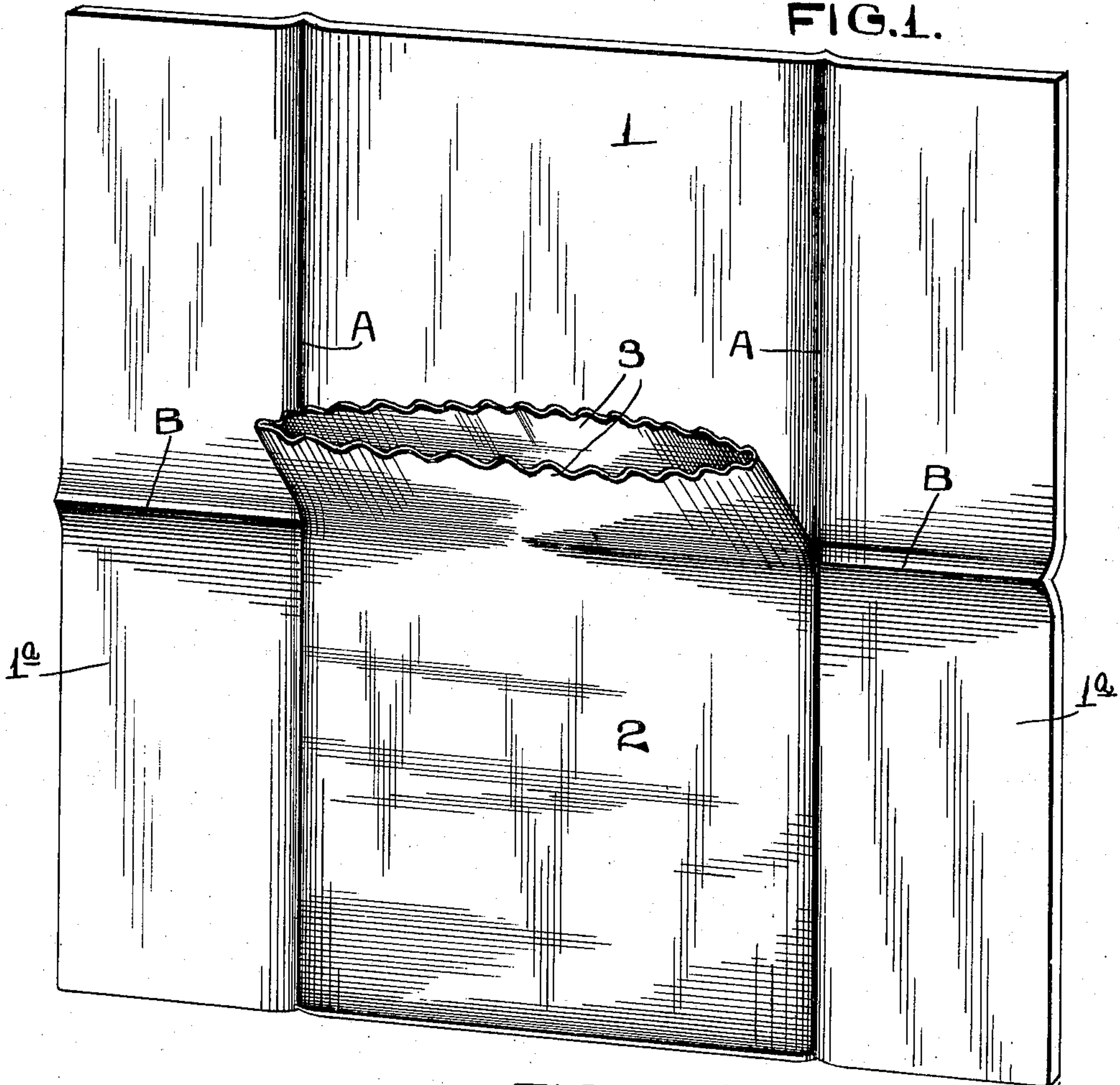
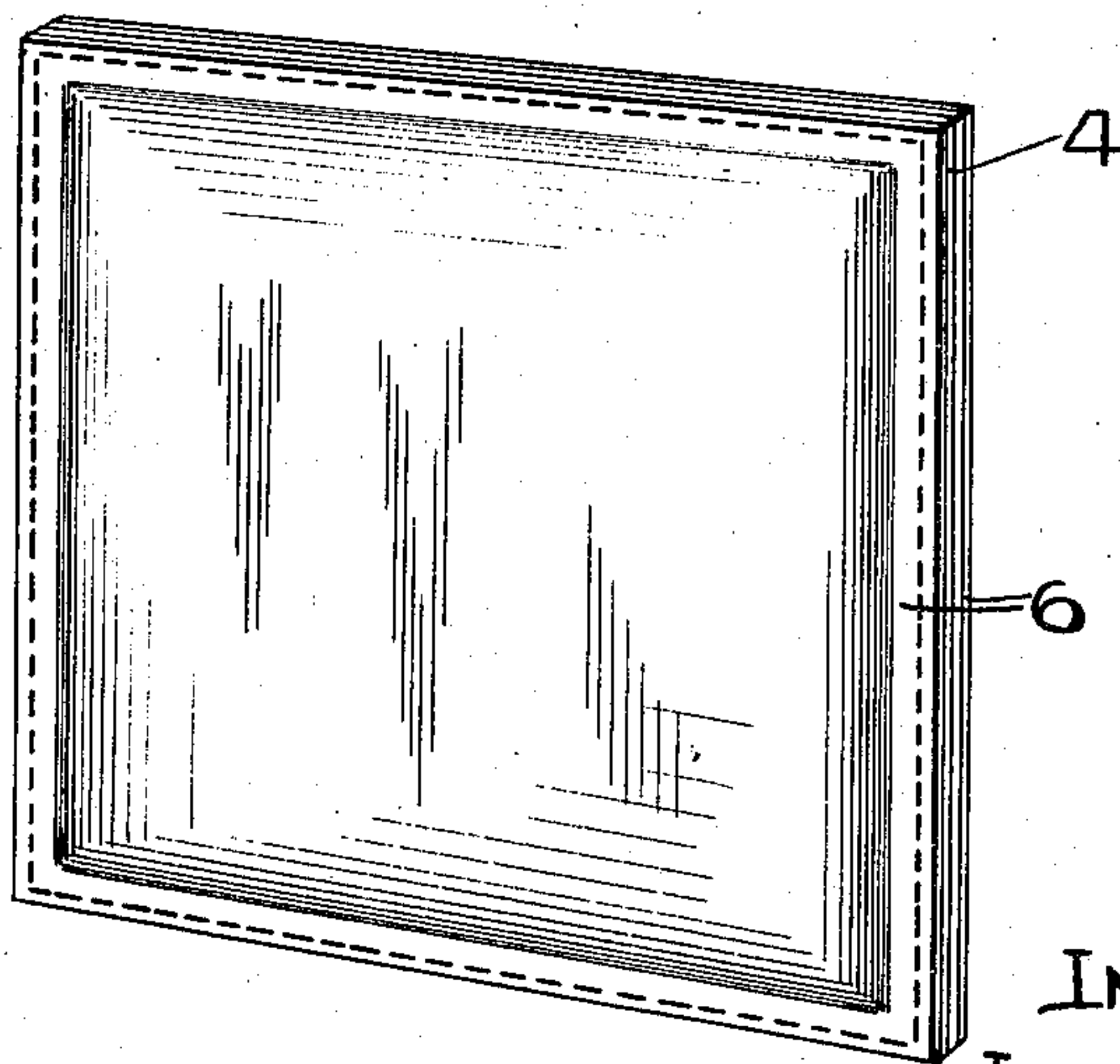


FIG. 2.



ATTEST.  
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2 SHEETS—SHEET 2.

FIG. 3.

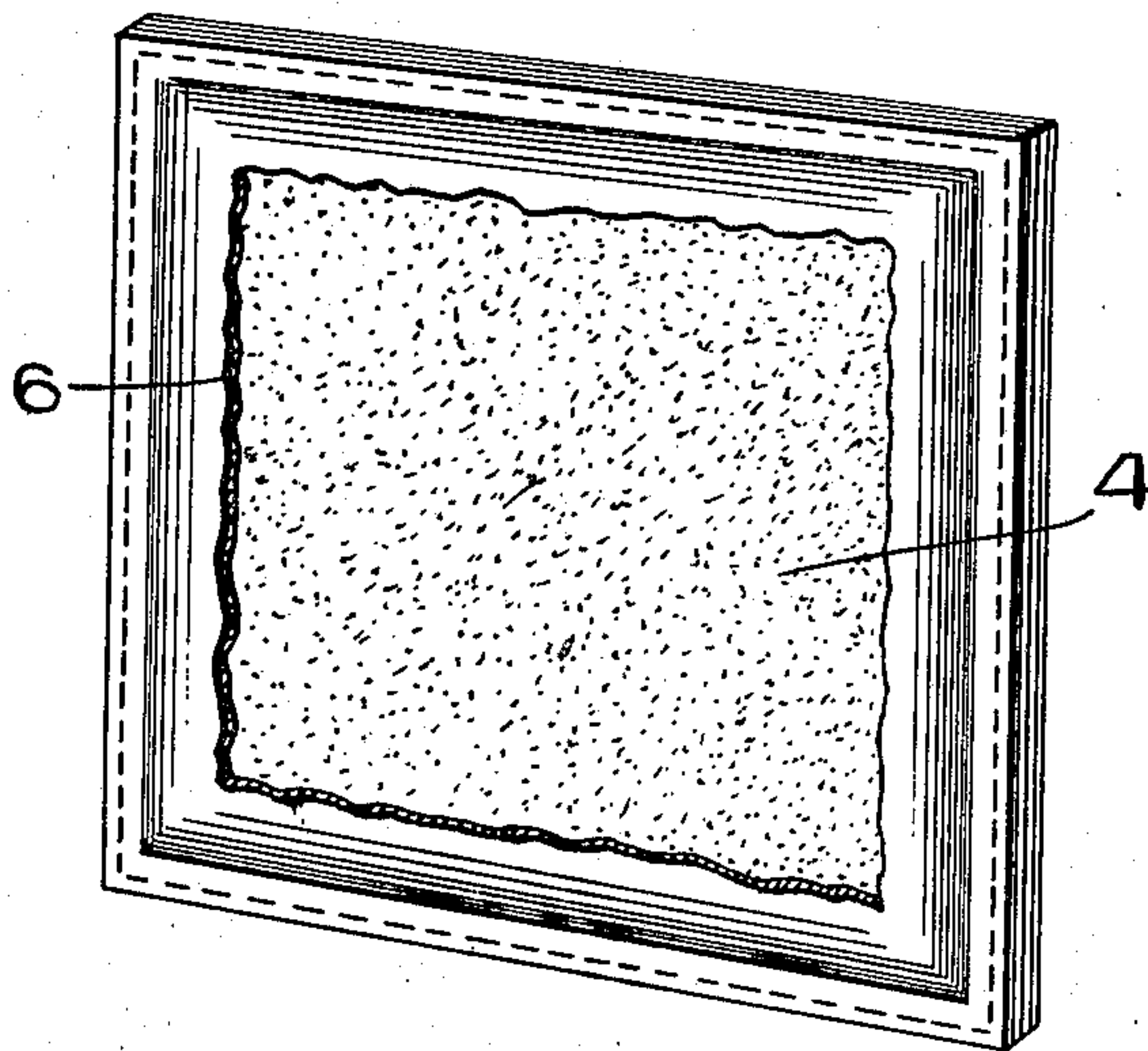
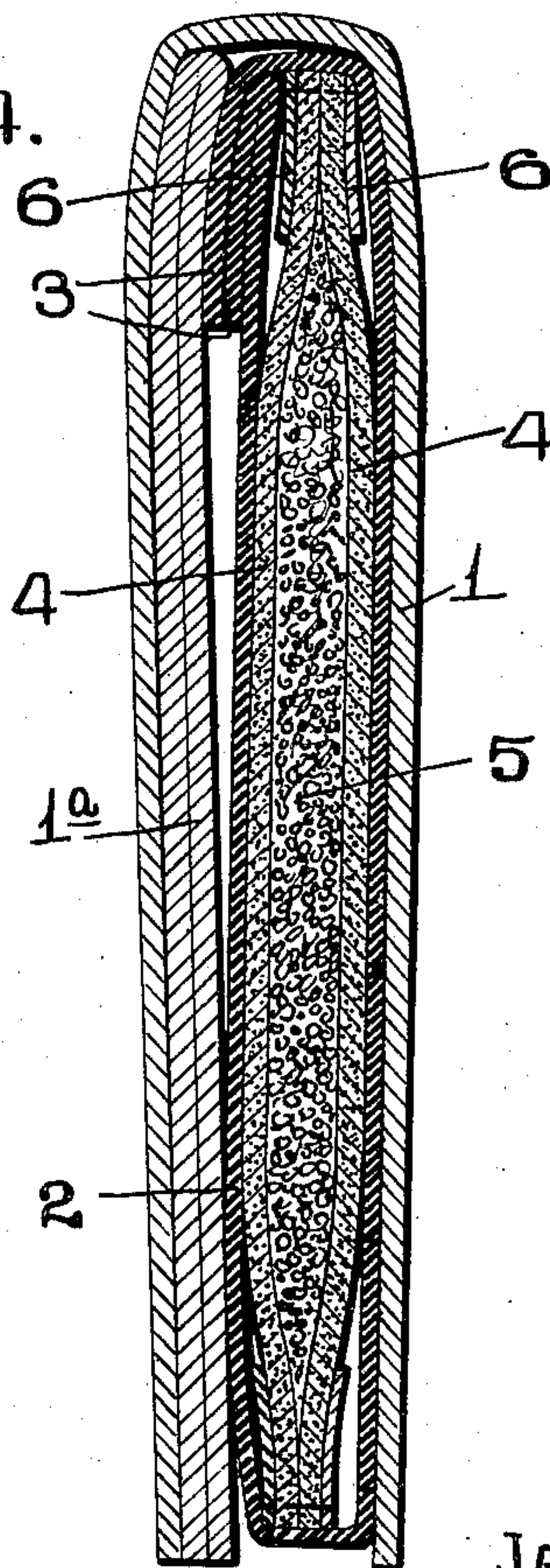


FIG. 4.



ATTEST.

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INVENTOR.

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# UNITED STATES PATENT OFFICE.

JAMES E. ALLISON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CHARLES R. JUDGE, OF ST. LOUIS, MISSOURI.

## HEATING-PAD.

No. 858,848.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed April 30, 1906. Serial No. 314,588.

*To all whom it may concern:*

Be it known that I, JAMES E. ALLISON, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Heating-Pads, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a heating pad, and the object of my invention is to provide a pad wherein heat is generated independent of fire, and which pad while in a heated condition can be applied to any portion of the body.

A further object of my invention is to provide a flexible pocket or container with a chemical agent capable of evolving heat when moistened, and to provide a flexible envelop in which the container is located while it is in a moistened condition and evolving heat.

A further object of my invention is to construct a container of porous material, and which container is provided with a temporary moisture proof covering which is removed when the container is moistened to allow water to act upon the chemical agent within said container.

A further object of my invention is to provide the envelop for the container with a series of folding flaps so as to provide for different degrees of heat when the pad is applied to the body.

To the above purposes, my invention consists of certain novel features of construction and arrangement of parts which will be hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of the envelop portion of my improved pad; Fig. 2 is a perspective view of one of the containers in which is located the chemical agent; Fig. 3 is a perspective view analogous to Fig. 2, and showing the moisture proof covering torn from one side of the container so as to expose the porous material of which the container is constructed; Fig. 4 is a vertical section taken through the center of a pad of my improved construction, and showing the container located within the envelop.

In the construction of the device, the envelop is made from a rectangular section 1 of heavy flexible material, such as cloth or felt, and stitched or secured in any suitable manner to the center of the lower half of this section 1 is a pocket 2, of rubber cloth or analogous material, which is impervious to steam or water. The side sections 1<sup>a</sup> of the main section 1 are adapted to fold over onto the front face of the pocket 2, and onto the upper half of said section 1 on the creased lines A, which

are in vertical alinement with the sides of the pocket 2. The upper half of the section 1 is adapted to fold downwardly onto the lower half on the creased lines B. The pocket 2 is open at its upper end, and the portions 3 adjacent said upper end are adapted to fold downwardly onto the body portion of the pocket. The container is constructed of a pair of rectangular sections 4 of porous material, such as heavy blotting paper, or analogous material, the four edges of which sections are secured in any suitable manner, and located within the pocket just formed is a quantity of pulverized lime 5, or analogous chemical, which is capable of evolving heat when combined with water.

Covering the sections 4 and secured to the edges thereof in any suitable manner, are the rectangular sections 6 of water proof material, such as paraffin paper, or analogous material. When the container thus constructed is finished, it is dipped in melted paraffin, or analogous material, so as to effectually seal the edges of the container, and make the same perfectly air and water proof.

When it is desired to use my improved pad, the water proof coverings 6 of the container are torn or cut from the sides thereof, after which said container is immersed in water a sufficient length of time to allow the water to pass through the porous sections 4 and act upon the lime or analogous material within the container. The container is now slipped into the pocket 2, of rubber cloth, after which the flaps 3 are folded over the top of said pocket, and this very effectually seals the pocket and prevents the escape of any water or steam therefrom. The sides 1<sup>a</sup> are now folded over onto the pocket 2 in the lower half of the section 1, at the creased lines A, after which the upper half of the central portion of the section 1, and the upper halves of the sections 1<sup>a</sup> are folded downwardly onto the lower halves of the sections 1<sup>a</sup>, thus forming a convenient pad with a single thickness of cloth or felt on one side, and three thicknesses on the opposite side.

The slaking of the lime in the container will generate a certain amount of heat, and thus when the pad is placed on the body, the afflicted part will be correspondingly heated. The pad being readily flexible can be bent into any form desired. By folding the side sections 1<sup>a</sup> over onto the pocket 2, after the upper ends 3 thereof have been properly folded downwardly, the possibility of the escape of any water or steam from the pocket is reduced to a minimum. After all of the lime in the container has become slaked so that the same does not evolve heat, the container can be removed and replaced by a freshly immersed container. Thus it will be seen that with a pad of my improved construc-

tion heat may be generated independent of fire, and the pad is simple, inexpensive, and easily applied for use.

I claim:—

- 5 1. A heating pad, comprising an absorbent porous flexible jacket, a chemical agent inclosed within said jacket susceptible of evolving heat when moistened, and a flexible pocket of water proof material for inclosing the jacket and its contents; substantially as specified.
- 10 2. A heating pad, comprising an absorbent porous flexible jacket, a chemical agent in granular form inclosed within said jacket susceptible of evolving heat when moistened, a pocket of rubber cloth for inclosing the jacket and its contents, and a flexible covering for the
- 15 pocket; substantially as specified.
3. A heating pad, comprising an absorbent jacket, a

chemical agent inclosed within said jacket susceptible of evolving heat when moistened, a pocket of rubber cloth for inclosing the jacket and its contents, and a flexible cover for the pocket; substantially as specified. 20

4. A heating pad, comprising a jacket of porous material, a chemical agent within said jacket susceptible of evolving heat when moistened, a temporary cover of paraffin paper for said jacket, a pocket of rubber cloth for receiving the jacket and its contents, the open top of said 25 pocket being adapted to fold over, and a flexible cover for both sides of the rubber pocket; substantially as specified.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

JAMES E. ALLISON.

Witnesses:

M. P. SMITH,  
E. E. LONGAN.