(No Model.)

C. GERHARD.

BENGAL LIGHT BOOK.

No. 329,307. Patented Oct. 27, 1885.

Fig. 1.

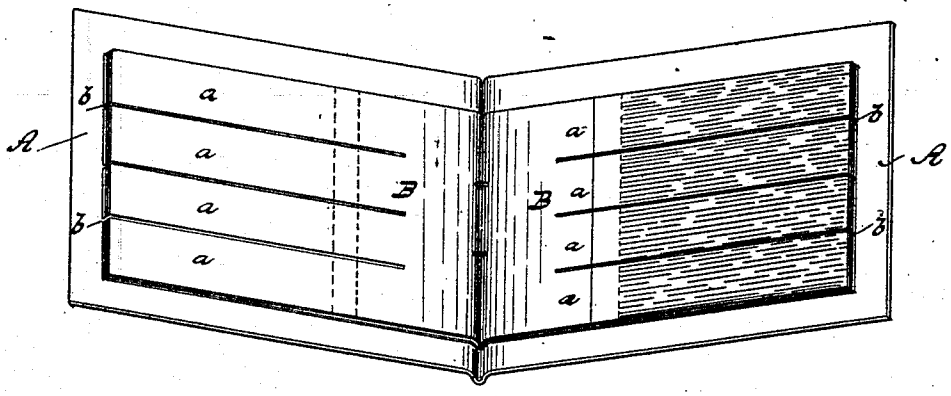


Fig. 3.

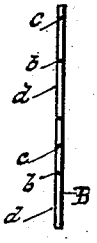


Fig. 2.

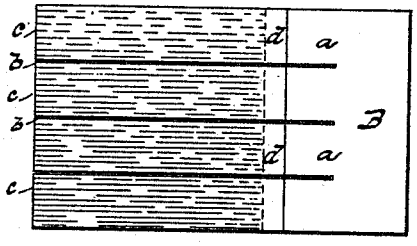


Fig. 4.

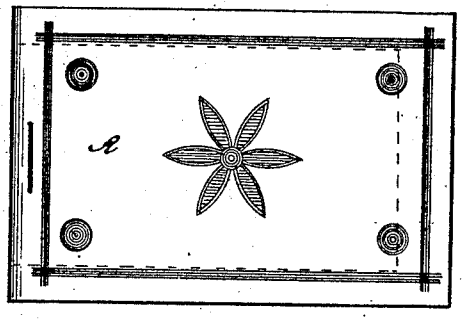
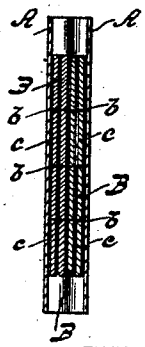


Fig. 5.



WITNESSES:

A. Faber du Faur Jr.

William Miller

INVENTOR

Charles Gerhard.

BY

Van Santvoord & Hauff

His ATTORNEYS

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES GERHARD, OF NEW YORK, N. Y., ASSIGNOR TO THE UNEXCELLED FIREWORKS COMPANY, OF SAME PLACE.

BENGAL-LIGHT BOOK.

SPECIFICATION forming part of Letters Patent No. 329,307, dated October 27, 1885.

Application filed March 19, 1885. Serial No. 159,502. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GERHARD, a citizen of Germany, residing at New York, in the county and State of New York, have invented new and useful Improvements in Bengal-Light Books, of which the following is a specification.

My invention consists in a book composed of slitted leaves suitably bound together and having upon part of their surface bengal-light composition; and, also, in the combination, with a book-cover, of slitted leaves, a bengal-light composition spread upon the divided parts, and covering-sheets over said composition, which prevent the same from crumbling and falling off the leaves.

In the accompanying drawings, Figure 1 represents a view of my book, showing the same open. Fig. 2 is a face view of one of the leaves. Fig. 3 is an end elevation of the same. Fig. 4 shows the book when closed. Fig. 5 is a transverse vertical section through the book when closed.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the cover of the book, which is made of any material suitable for the purpose. B B, &c., represent the leaves, which are best made of heavy paper having the requisite degree of stiffness, and said leaves are divided into longitudinal parts *a* by narrow slits *b*. Before the leaves are so divided or slit they are coated on one face with a layer, *c*, of prepared bengal-light composition or other similar material producing a colored flame when ignited, said composition being applied when in a viscous state to the leaves, and then a covering-sheet, *d*, of tissue-paper or similar material, is spread over the composition, whereby the latter is prevented from cracking or crumbling off from the leaves. After the composition is partially dried the leaves are slitted, and the parts *a* are thereby formed as before described, and then the leaves are bound up in book form.

In the manufacture of these books leaves containing on their respective surfaces bengal-light composition producing flames of different color when ignited are bound together, so that various colors can be produced by detaching one of the parts of the leaves or a whole leaf and igniting the prepared surface. These lights can be held in the hand while burning, and are absolutely safe, while at the same time they are very convenient and easily manipulated.

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

1. A book consisting of slitted leaves suitably bound together, said leaves being provided with a bengal-light composition, substantially as shown and described.

2. The combination, with a book-cover, of the slitted leaves B B, &c., bengal-light composition spread upon the divided parts, and the covering-sheet over said composition, substantially as shown and described.

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

CHARLES GERHARD. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.