

(No Model.)

F. MILLS & C. H. KNIGHT.

BOOK.

No. 289,434.

Patented Dec. 4, 1883.

Fig. 1.

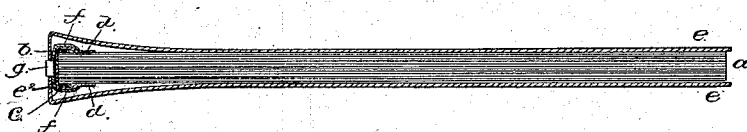


Fig. 2.

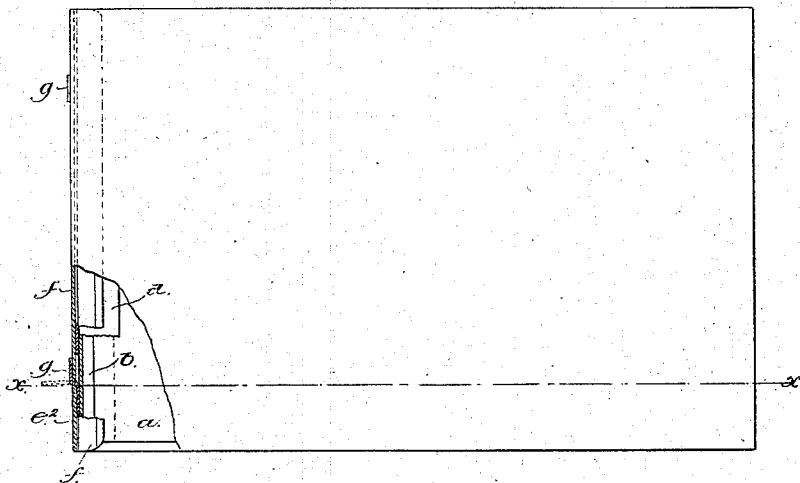
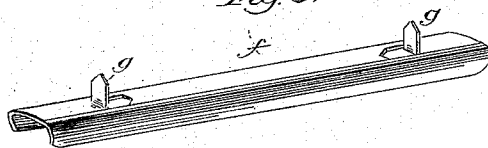


Fig. 3.



Witnesses.
John F. C. Pringle.
Fred A. Powell.

Inventors.
Frederick Mills and
Clarence H. Knight.
by Crosby & Emory Attys

UNITED STATES PATENT OFFICE.

FREDERICK MILLS AND CLARENCE H. KNIGHT, OF BOSTON, MASS.

BOOK.

SPECIFICATION forming part of Letters Patent No. 289,434, dated December 4, 1883.

Application filed June 21, 1883. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK MILLS and CLARENCE H. KNIGHT, both of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Books, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to improve the construction of books, and especially in the method of holding the book and attaching the book to the cover.

Our invention consists, essentially, in a book having attached to it, at or near one edge on opposite sides, longitudinal cleats, preferably inclosed in a textile or other strong binding, combined with a trough-like metallic backing to grasp and hold the cleated back of the book against other movement than in the direction of the length of the said back, and having prongs or points which are clinched to the cover of the book, to thus secure it to the book, substantially as hereinafter specifically described and claimed.

Figure 1 represents a section of a book and cover embodying our invention, the section being on the dotted line *xx*, Fig. 2. Fig. 2 is a plan view of one of the said books with the cover, back, and binding partially broken out; and Fig. 3 shows the metallic back in perspective.

The book *a*, composed of a series of leaves or sheets of paper, either plain or printed, has one of its side edges coated or covered with paste or glue, and upon and near the edges of the upper and under sheets of the said book we have applied two cleats, *b c*, composed of thick paper, pasteboard, wood, or suitable material to form ribs. (Shown in black, Fig. 1.) The pasted edge and cleats are all enveloped or covered by a binding, *d*, preferably of cloth. The cover *e*, of usual material or shape, has a suitable metallic trough-like back or holder, *f*, clinched or riveted to it, the metal back or holder being herein shown as provided with prongs or sharp points *g*, struck back from it and adapted to penetrate the central part of the cover at *e*.

Fig. 2 of the drawings shows the said prongs or points bent over or clinched to the outside

of the cover. The trough-like back or holder is of dovetail shape in cross-section, as shown in Fig. 2, it being narrowest at its mouth, and the edge of the book, with its added cleats *b c*, is inserted into the said back or holder at one end and slid into place, so that the book has the proper position with relation to the cover, and so that it cannot be removed by strain exerted thereon at right angles to the longitudinal center of the said back. The cleats *b c* aid in forming a rib or thick head, which is grasped by the metallic back, thus retaining the same in place against other movement than in the direction of the length of the said back, and obviate the necessity of forming a thick edge on the book by the employment of great pressure, as now generally practiced, to form a head with depressions, into which the inturned edges of the metal back are entered to retain the book in place.

We do not broadly claim a book having one edge shaped to enter and be retained by a metallic back, as we know that to be old; but we are not aware that a book has ever had one of its edges provided with independent cleats to form ribs to co-operate with a metallic back.

We claim—

1. A book, *a*, provided with independent cleats *b c*, applied thereto on opposite sides of one end, combined with a metallic back, *f*, adapted to engage and hold the cleated edge of the said book when inserted therein, substantially as described.

2. The book *a*, the independent cleats applied to it on opposite sides near the edge, and the binding *d*, applied to the said cleated edge, combined with the metallic backing *f*, to grasp and hold the cleated back of the book against other movement than in the direction of the length of the said back, and having prongs or points which are clinched to the cover of the book, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FREDERICK MILLS.
CLARENCE H. KNIGHT.

Witnesses:

W. H. SIGSTON,
JOS. P. LIVERMORE.