(No Model.)

A. H. ROACH & F. KROEDEL.

TEMPORARY BINDER.

No. 317,856. Patented May 12, 1885.

Fig. 1.

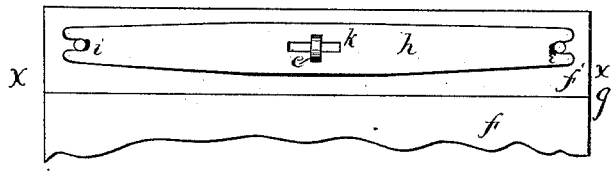


Fig. 2.

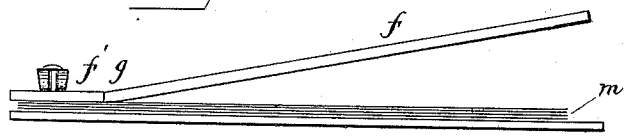


Fig. 3.

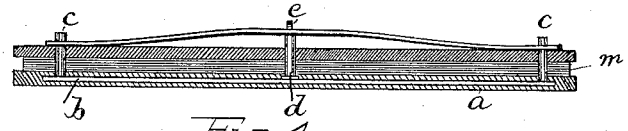


Fig. 4.

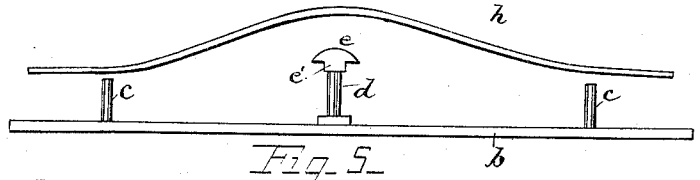
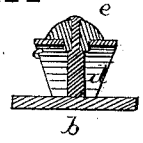


Fig. 5.

Fig. 7.



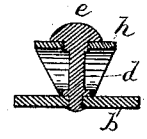
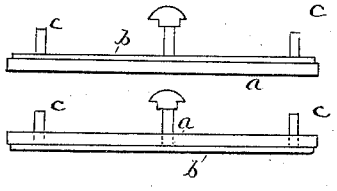


Fig. 6.



Witnesses.
C. M. Brown.
M. L. Williams.

Inventors.
A. H. Roach
Franz Kroedel
By W. A. Barrett
Their atty.

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

UNITED STATES PATENT OFFICE.

ALFRED H. ROACH, OF BROOKLYN, NEW YORK, AND FRANZ KROEDEL, OF HOBOKEN, NEW JERSEY.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 317,856, dated May 12, 1885.

Application filed April 9, 1884. (No model.)

To all whom it may concern:

Be it known that we, ALFRED H. ROACH, of Brooklyn, New York, and FRANZ KROEDEL, of Hoboken, New Jersey, have invented certain new and useful Improvements in Temporary Binders, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to temporary binders for papers, particularly such as way-bill, receipt, and delivery blanks, bills of lading, &c., in which a few sheets generally will be required for use, and in which the sheets will be frequently changed.

The invention consists of a pair of strong covers, one of which is flat and the other hinged, and a clamping mechanism by which the covers are held together with the sheets or blanks, substantially as hereinafter described and claimed.

The object of the invention is to incline the sheets on which a record is to be kept within permanent and durable covers, which will fully protect said sheets, and at the same time leave them in condition to be easily removed and readily replaced by other sheets.

In the drawings, Figure 1 is a plan of the securing-clamp applied to the covers. Fig. 2 is a side elevation of the clamp and covers with inserted leaves. Fig. 3 is a section through covers and clamp on line *x x*, Fig. 1. Fig. 4 is an elevation of an elongated form of clamp plates and studs removed from covers. Fig. 5 is a central cross-section of same. Fig. 6 shows plate applied above and below bottom cover. Fig. 7 is a modification of the fastening-button.

The lower cover of the binder is made a little larger than the sheets to be inclosed, as at *a* in the drawings. This cover is made heavy and strong, and of materials usual in bookbinding, as of binders' board covered with leather or fabric.

A base-plate, *b*, is embedded in the cover, as shown in Fig. 3; or it may be secured to the upper or lower surface of said cover, as shown in Fig. 6. The piece *b*, when applied to either face of cover-piece *a*, may be secured thereto by screws or rivets. The base-plate *b* has two pins, *c c*, extending from its face, as shown. These pins are long enough to extend through all the sheets that may be placed in the binder, and also through the top cover and a little above the surface of the same.

A swiveled pin or stud, *d*, at about the center of plate *b*, extends up a little higher than the pins *c*, and has a turn button or head, *e*, at its top. This button or head is elongated to furnish a grasp for the fingers, but is thin enough to pass through the slot in the spring, hereinafter described. The head *e* is squared at *e'*, just under the elongated portion.

The cover *f f'* is similar to cover *a* in general outline, but is separated into two parts by a hinge-connection, *g*. The smaller part *f'*, back of the hinge, is perforated for the passage of the pins *c c d*, and may be strengthened by the insertion or application of a metal plate through which the pins may pass.

A spring-plate, *h*, notched at each end, as at *i i*, and having a slot, *k*, in its center, forms a spring-clamp by which all the parts may be held together. The spring is curved, as clearly shown at Fig. 4. The slot *k* is long enough to permit the passage of the button or head *e* through it when turned in the proper direction, but of such width that the squared part *e'* will not turn in it.

In using the binder, the piece *b* being firmly secured to cover *a*, as many sheets *m* as are needed are perforated and placed over the pins *c c d*. The cover *f f'* is then placed over the pins. Next the spring *h* is so placed that its notches *i i* will embrace pins *c c*. The button *e* is turned into the position shown in Fig. 4. The spring *h* is then depressed in the center, so that the length of the button will coincide with that of the slot. Then by pressing down the middle of spring *h* all the parts will be pressed firmly together. When the button *e* has passed through slot *k*, it is turned a quarter of a revolution, and then the spring is released. The center of the spring rises so as to embrace the squared part *e'* of the button, preventing it from turning further, and the button in turn holds the spring down to its bearing, so that all parts are firmly clamped.

To release the clamp the center of the spring is again depressed, when the button may be again turned through a quarter of a revolution, so that it can pass through the slot, and the spring *h* is thus released.

It is apparent that the entire stud *d* may be swiveled, as in Fig. 5, or the head only may turn, as in Fig. 6, and that the squared part may be either on the stud or on the head.

I claim—

1. The combination, in a temporary binder, of a cover, *a*, having pins *c* and a binding-stud, a hinged cover perforated for the passage of said pins and stud, and a spring-plate, constructed, as described, to clamp the covers together by means of the stud and its head, substantially as described.

2. The combination of cover *a*, having pins *c c*, and stud *d*, having turn-button, the hinged cover *f f'*, perforated as described, and the spring-plate *h*, slotted, as described, for the passage of the head of the turn-button, substantially as set forth.

3. The combination, with the cover *a*, having strengthening-plate *b* secured thereto, the pins *c c*, projecting from said plate, and stud *d*, bearing the turn-button *e*, having squared part *e'* just below the head, and the hinged cover *f f'*, perforated as set forth, of the spring-plate *h*, notched and slotted as described, the sides of the slot adapted to engage with the squared part of the button, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ALFRED H. ROACH.
FRANZ KROEDEL.

Witnesses:
H. G. DUNGAN,
B. BROWN.