

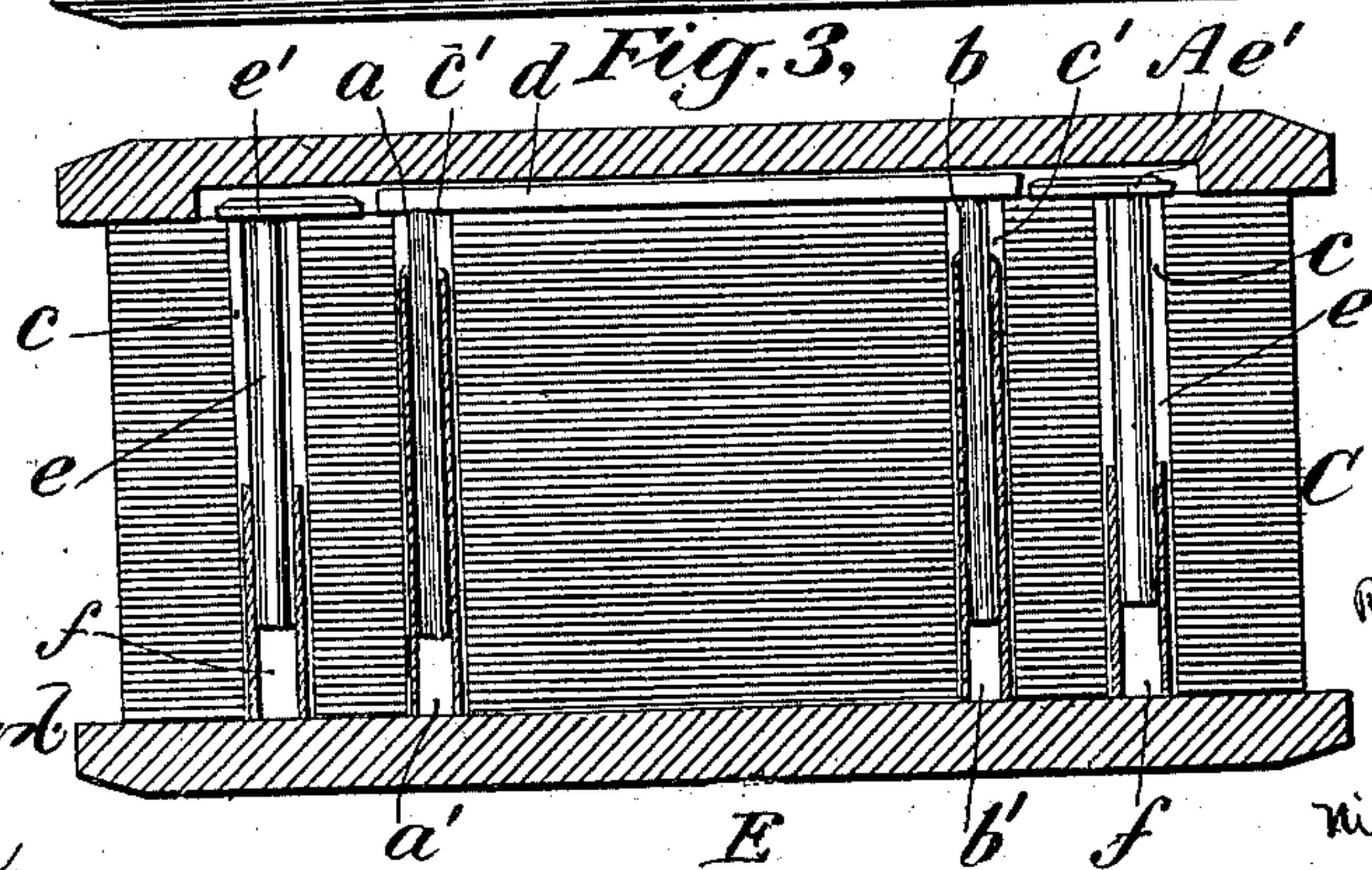
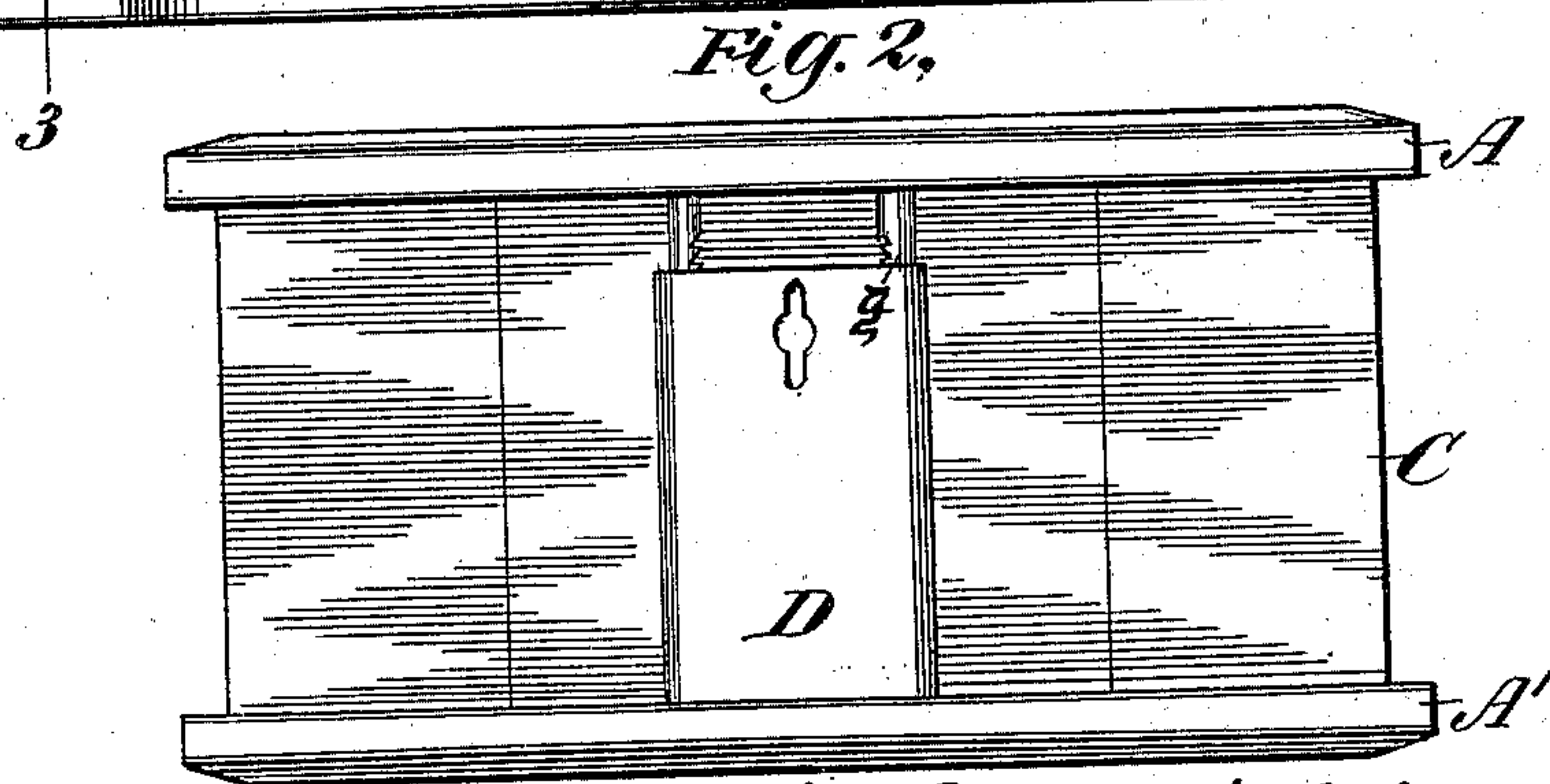
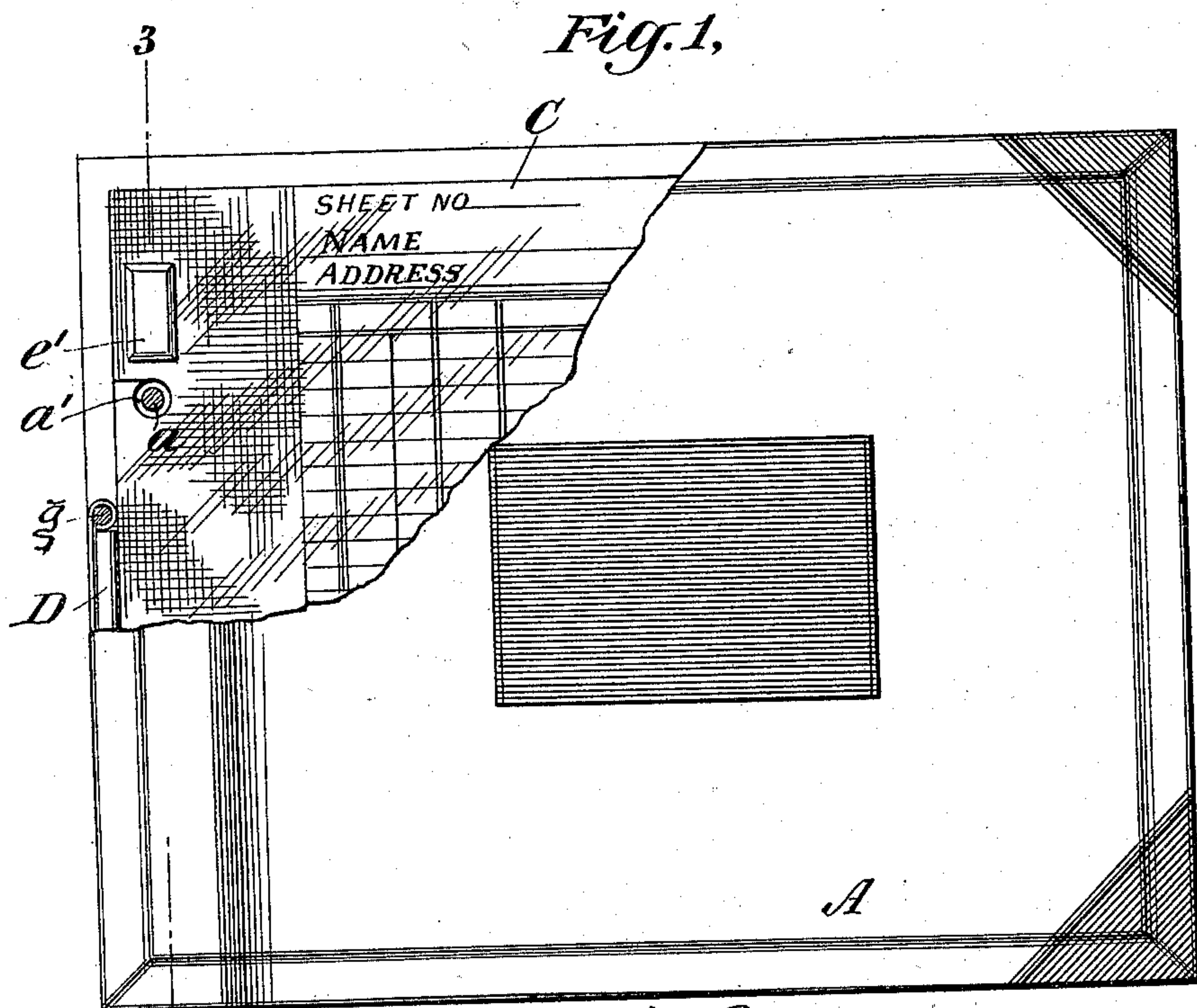
(No Model.)

2 Sheets—Sheet 1.

R. J. COPELAND & H. E. DADE.
BINDER AND SHEET THEREFOR.

No. 555,930.

Patented Mar. 10, 1896.



WITNESSES:

R. H. Haywood
Harry L. Goss.

INVENTORS
Robert J. Copeland
and
Harry E. Dade
by
Nicholas M. Goodlett,
their ATTORNEY

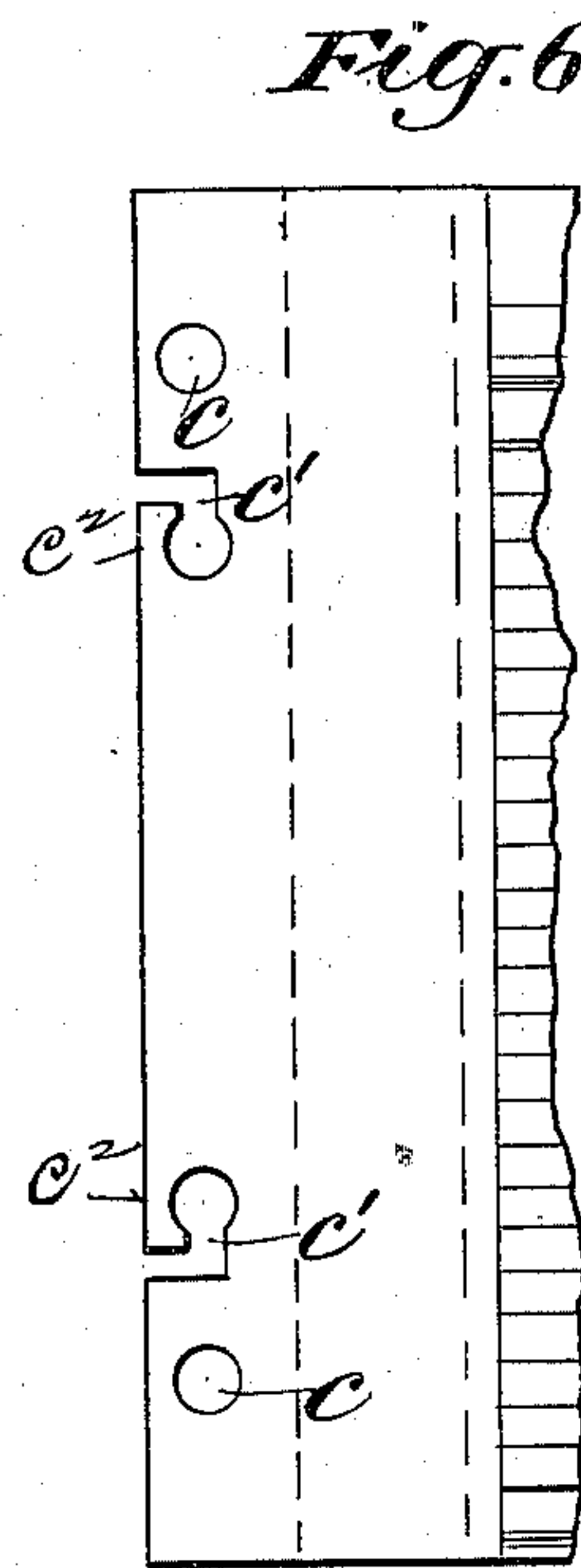
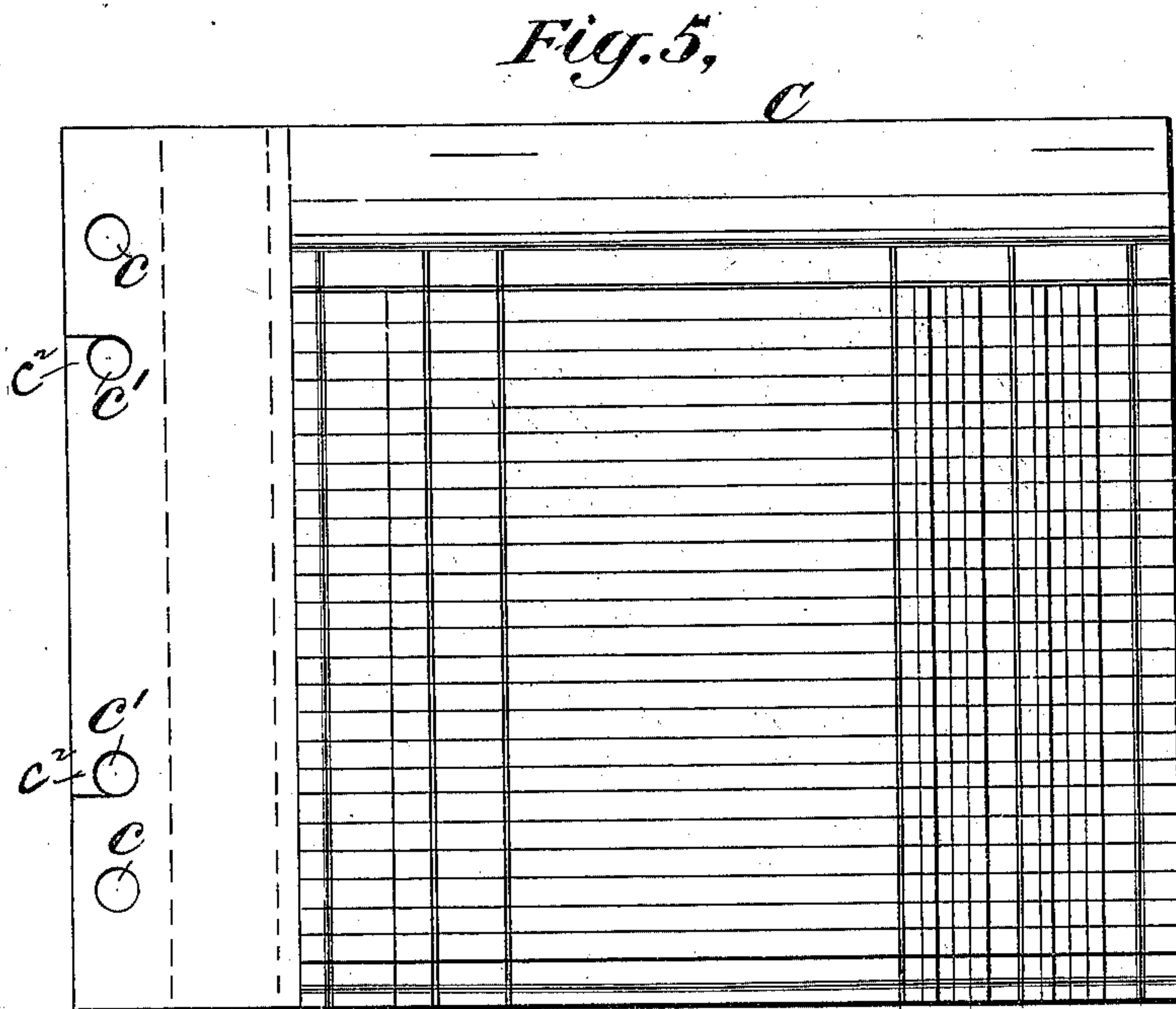
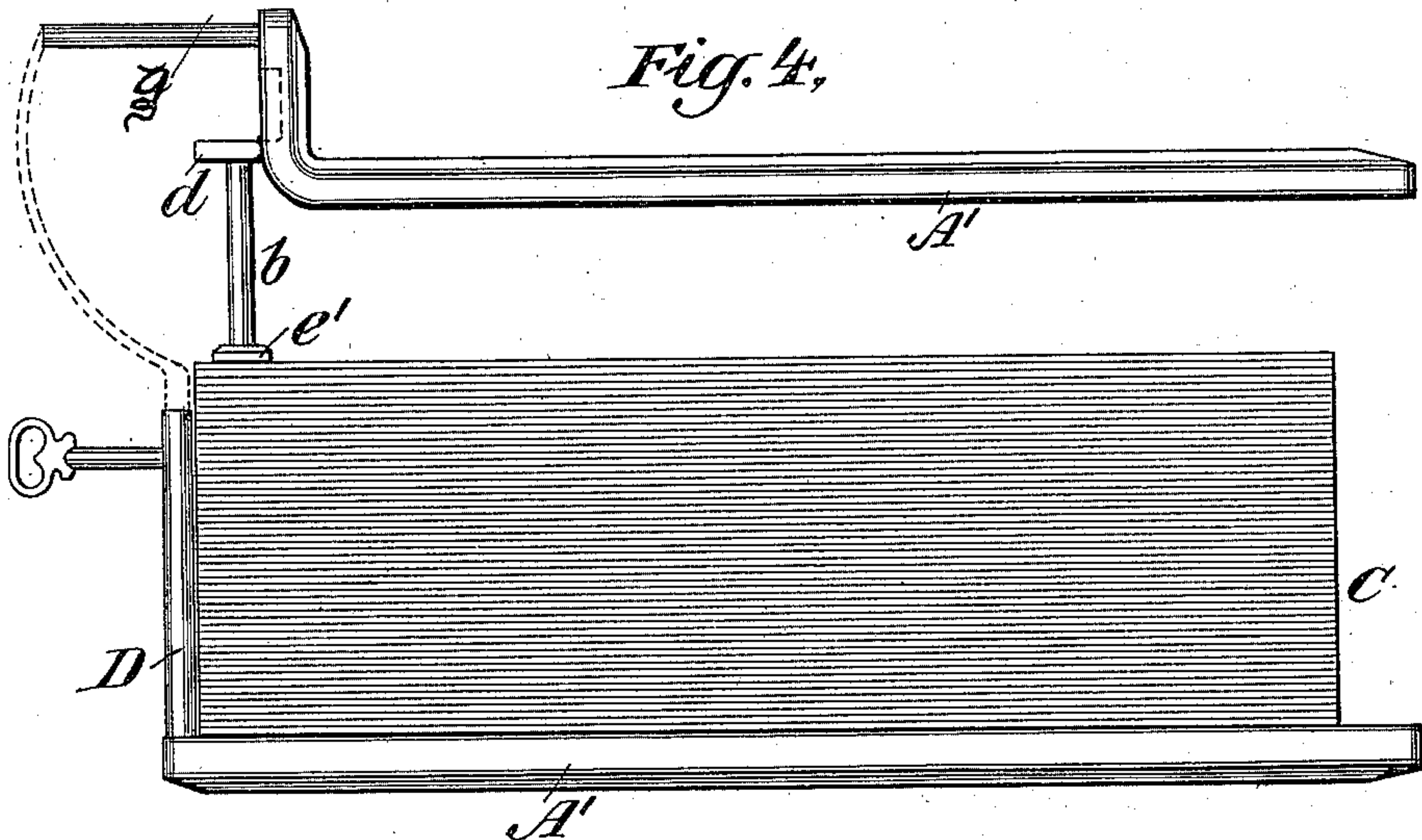
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2 Sheets—Sheet 2.

R. J. COPELAND & H. E. DADE.
BINDER AND SHEET THEREFOR.

No. 555,930.

Patented Mar. 10, 1896.



WITNESSES:

W. H. Hayworth
Harry A. Goss.

INVENTOR

Robert J. Copeland
and
Harry E. Dade
BY
Nicholas M. Goodlett
Their ATTORNEY

UNITED STATES PATENT OFFICE.

ROBERT J. COPELAND, OF NEW YORK, AND HARRY E. DADE, OF
BROOKLYN, NEW YORK.

BINDER AND SHEETS THEREFOR.

SPECIFICATION forming part of Letters Patent No. 555,930, dated March 10, 1896.

Application filed October 30, 1895. Serial No. 567,418. (No model.)

To all whom it may concern:

Be it known that we, ROBERT J. COPELAND, a resident of New York city, in the county of New York, and HARRY E. DADE, a resident of Brooklyn, in the county of Kings, State of New York, citizens of the United States, have invented an Improvement in Binders and Sheets Therefor, of which the following is a specification.

10 This invention relates to binders adapted to securely hold a plurality of sheets or leaves in place and to the sheets or leaves adapted to be secured in the binder.

15 The invention consists of the peculiar features of the binder and of the sheets or leaves hereinafter set forth.

In the drawings, Figure 1 is a plan view of a binder in book form embodying the invention, part of one cover being broken away. 20 Fig. 2 is a rear end elevation of the binder shown in Fig. 1. Fig. 3 is a sectional elevation of the binder shown in Fig. 1, taken on the line 3 3 thereof. Fig. 4 is a side elevation of the binder shown in Fig. 1, the upper cover 25 being elevated above the leaves. Fig. 5 is a plan view of a sheet or leaf embodying a part of the invention. Fig. 6 is a plan view of a fragment of a leaf embodying a modification of that part of the invention relating to the 30 sheet or leaf.

Referring now to the particular embodiment of the invention shown in the drawings, A and B are the covers or backs of the binder, and C are the sheets or leaves inclosed between the covers, the binder being in the form of a book. The sheets C may be of paper and ruled, as shown in Fig. 5, for keeping accounts, or they may be of any other material which it may be desired to secure in the binder. 35 Along the back edge of each leaf or sheet are one or more closed apertures *c*, preferably two in number, and one or more open apertures *c'*, preferably two in number. The apertures *c'* may be made open by a slit extending from the back edge of the sheet to the aperture, as shown in Fig. 5, or by cutting away a narrow strip of the sheet from the back edge of the sheet to the aperture, as shown in Fig. 6. In both these cases it will be seen that the open 45 apertures *c'* are made in such a way as to have portions *c*² of the sheet in the path of the sheet's

removal from the posts passing through these open apertures. By this means the sheets are held securely against accidental displacement from the posts for these apertures, but can be 55 easily removed from the posts, when desired, by a positive pull, as will hereinafter clearly appear.

The binder is provided with a post adapted to pass through each open aperture *c'* and 60 with a post adapted to pass through each closed aperture *c*, whereby the sheets are secured in place. In the drawings the posts for the open apertures are shown made in two sections, consisting of the tubes *a'* and *b'* and 65 the studs *a* and *b* arranged to slide within the tubes. The posts *a a'* and *b b'* are secured together at their lower ends by being fixed to a suitable back, as B. At the other ends the posts are secured together by being fixed to a 70 bar *d*, as shown in Fig. 3, or they may be fixed directly to a back or cover, such as A. In the best form, however, they are fixed to the bar *d*, and the bar is hinged to the cover, as shown clearly in Fig. 4. It is not always es- 75 sential to have these posts extensible; but it is preferred that they be so made, and this is provided for by constructing the posts of tubes and studs, as above described and shown. 80

When made extensible, it is best to permanently connect the members of the posts together, and this may be done by forming heads on the lower ends of the studs free to slide in the tubes, but unable to be drawn out of them 85 because of the restricted orifices at the upper ends of the tubes. Of course these posts may be made extensible in other ways as well; but that shown is believed to be the best. Each post *e* for the closed apertures of the sheets is 90 so arranged that when passing through the closed apertures of the sheets it may be withdrawn therefrom, leaving the sheets held in the binder by only the post or posts that pass through the open aperture or apertures. By 95 this arrangement when the posts *e* are withdrawn a sheet may be inserted in place or withdrawn from the binder by slipping the open apertures of the sheet off their post, the post passing through the opening of the ap- 100 erture; but when a post *c* is in place in the closed aperture of a sheet the sheet cannot be

withdrawn. By having the posts for the open apertures extensible the withdrawal or insertion of a sheet is greatly facilitated, because these posts may be extended and any number
 5 of the sheets may be spread apart on the posts to give access to the place of withdrawal or insertion of the sheet.

In case the covers or backs are used and where the studs *a* and *b* are secured to a back
 10 this back may be spread apart from the other back and carry with it the studs *a* and *b* and thus extend the posts *a a'* and *b b'*, as shown clearly in Fig. 4. There are various ways of arranging the posts *e*. As herein shown, these
 15 posts are separate and independent from each other and from the other parts of the binder and have heads *e' e'* to rest upon the top of the sheets, the heads fitting a suitable recess in the under side of the contiguous cover A.
 20 The other ends of the posts engage the back B by entering the tubes *f* secured to this back. When the cover A is in place and fastened by the lock D, these posts are locked in place. If desired, however, these posts *e* may pass
 25 through apertures in the back A or may be connected together at their outer ends, so as to be removable together. To this end they may be permanently connected by a connecting-bar similar to the bar *d* connecting the
 30 posts *a a'* and *b b'*, or where these latter posts are extensible and have their members not permanently connected together so that the members can be separated the posts *e* may be permanently connected at their outer ends
 35 to the cover or back A and be removable with the back A. The always essential feature of these posts *e* is that they must be capable of being drawn out of the closed apertures *c* of the sheets to permit the sheets to be with-
 40 drawn or inserted in place by slipping the openings of their open apertures past their posts. It is best to employ a means of some kind whereby the sheets may be locked in place. The form of lock D shown in the draw-
 45 ings is convenient for the purpose. In this lock ratchet-posts *g* secured to the hinged rear margin of the back A fit in the lock-casing secured to the hinged rear margin of the back B. Any means for locking the posts for the
 50 apertures of the sheets in place, however, may be used, and instead of broad backs, such as shown, backs which are simply binding-strips may be used.

While we have shown our complete inven-
 55 tion in what we believe to be the best form, it is to be understood that various changes, which will readily suggest themselves to any one skilled in the art, could be made without departing from the broad spirit of the inven-
 60 tion. For example, one, two or more open and one, two or more closed apertures in each sheet may be used with one, two or more posts for the closed apertures and one, two or more posts for the open apertures. Again, the in-
 65 vention contemplates non-extensible as well as extensible posts for the open apertures.

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

1. In a binder, the combination of one or more extensible posts fixed to a suitable back
 70 and adapted to pass through an aperture or apertures in a sheet of paper or other fabric, and one or more removable posts adapted to pass through another aperture or other aper-
 75 tures in the sheet, substantially as set forth.

2. In a binder, the combination of one or more extensible posts whose members are per-
 80 manently connected together fixed to a suitable back and adapted to pass through an aperture or apertures in a sheet of paper or
 85 other fabric, and one or more removable posts adapted to pass through another aperture or other apertures in the sheet, substantially as set forth.

3. In a binder, the combination of one or
 85 more extensible posts fixed to a suitable back and adapted to pass through an aperture or apertures in a sheet of paper or other fabric, and one or more removable posts engaging the
 90 back adapted to pass through another aper-
 95 ture or other apertures in the sheet, substan-
 100 tially as set forth.

4. In a binder, the combination of one or more extensible posts fixed to a suitable back
 95 and adapted to pass through an aperture or
 100 apertures in a sheet of paper or other fabric, one or more removable posts adapted to pass through another aperture or other apertures
 105 in the sheet, and means for locking the posts
 110 in place, substantially as set forth.

5. In a binder, the combination of one or more extensible posts fixed to a suitable back,
 110 said posts or each of them comprising a tube fixed at one end to the back and a stud slid-
 115 ing therein, said post or posts adapted to en-
 120 gage an aperture or apertures in a sheet of
 125 paper or other fabric, with one or more re-
 130 movable posts adapted to pass through an-
 135 other aperture or apertures in the sheet, sub-
 140 stantially as set forth.

6. The combination with a binder provided with two posts of a plurality of sheets of pa-
 145 per or other fabric, each sheet being provided with an open aperture and a closed aperture,
 150 one of said posts engaging the open apertures
 155 of the sheets and the other post engaging the closed apertures, and removable therefrom, whereby when the post engaging the closed
 160 apertures is removed from said apertures a sheet may be disengaged from the other post
 165 by slipping its open aperture off the other post and without displacing the remaining sheets from their proper position, substantially as set forth.

7. The combination of a binder provided
 125 with a suitable back and two posts, with a plurality of sheets of paper or other fabric, each sheet being provided with an open aper-
 130 ture and a closed aperture, one of said posts passing through the open apertures of the
 135 sheets and so connected to the back that it cannot be withdrawn from said apertures,

the other part passing through the closed apertures and adapted to be withdrawn therefrom, whereby when the post passing through the closed apertures is withdrawn therefrom a sheet may be withdrawn from the binder without displacing the other sheets by slipping its open aperture off the other post, substantially as set forth.

8. The combination of a binder provided with a suitable back and two posts, with a plurality of sheets of paper or other fabric, each sheet being provided with an open aperture and a closed aperture, one of said posts being extensible and passing through the open apertures of the sheets and so connected to the back that it cannot be withdrawn from said apertures, the other post passing through the closed apertures and adapted to be withdrawn therefrom, whereby when the post passing through the closed apertures is withdrawn therefrom a sheet may be withdrawn from the binder without displacing the other sheets by slipping its open aperture off the other post, substantially as set forth.

9. The combination with a binder provided with two posts, of a plurality of sheets of paper or other fabric, each sheet being provided with an open aperture and a closed aperture, one of said posts engaging the open apertures of the sheets and the other post engaging the closed apertures and removable therefrom, and means for locking the posts in said apertures whereby when the post engaging the closed apertures is removed from said apertures a sheet may be disengaged from the other post by slipping its open aperture off the other post and without displacing the remaining sheets from their proper position, substantially as set forth.

10. The combination of a binder provided with a suitable back and two posts, with a plurality of sheets of paper or other fabric, each sheet being provided with an open aperture and a closed aperture, one of said posts passing through the open apertures of the sheets and so connected to the back that it cannot be withdrawn from said apertures, the other post passing through the closed apertures and adapted to be withdrawn therefrom, and means for locking the posts in said apertures whereby when the post passing through

the closed apertures is withdrawn therefrom a sheet may be withdrawn from the binder without displacing the other sheets by slipping its open aperture off the other post, substantially as set forth.

11. In a binder the combination of a back, two extensible posts each comprising a tube fixed to the back and a stud sliding therein, said studs being connected together at their outer ends, with two other posts each comprising a tube fixed to the back and a removable stud entering said tube, and means for locking the posts in place, substantially as set forth.

12. In a binder the combination of a back, two extensible posts each comprising a tube fixed to the back and a stud sliding therein, said studs being connected together at their outer ends, with two other posts each comprising a tube fixed to the back and a removable stud entering said tube, means for locking the posts in place, and a plurality of sheets of paper or other fabric each provided with two open apertures and two closed apertures, said open apertures being engaged by the extensible posts and said closed apertures being engaged by the removable posts, whereby when the removable posts are removed a sheet may be disengaged from the binder or inserted therein by slipping its open aperture off or on the extensible post, substantially as set forth.

13. In a binder the combination of two backs, one or more extensible posts having their opposite ends connected to the backs, and adapted to pass through an open aperture or apertures of a sheet of paper or other fabric, and one or more posts adapted to pass through a closed aperture or apertures of said sheet and removable therefrom, and arranged to be secured in place between the covers, substantially as set forth.

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

ROBERT J. COPELAND.
HARRY E. DADE.

Witnesses:

NICHOLAS M. GOODLETT, Jr.,
EDWIN SEGER.