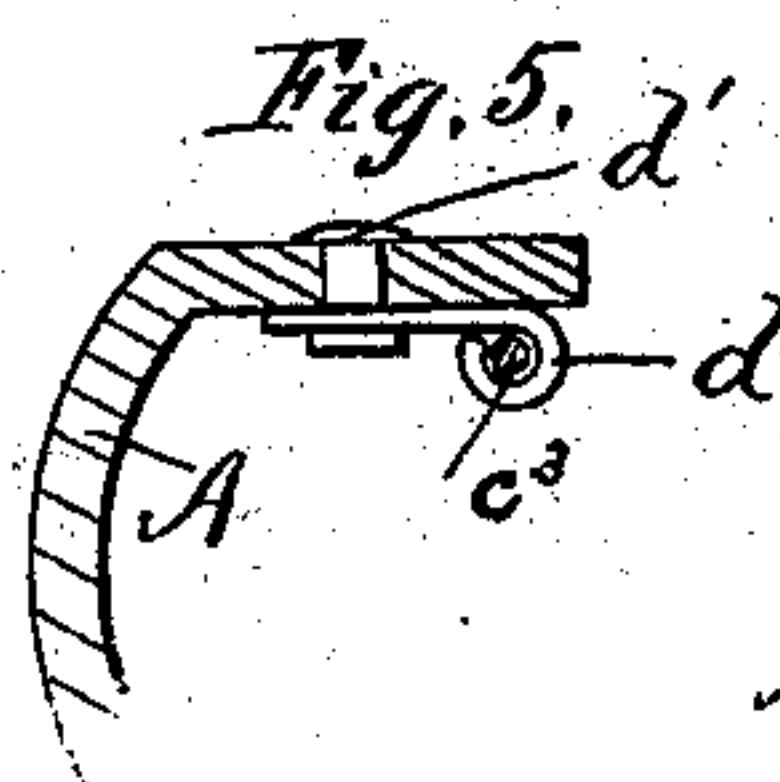
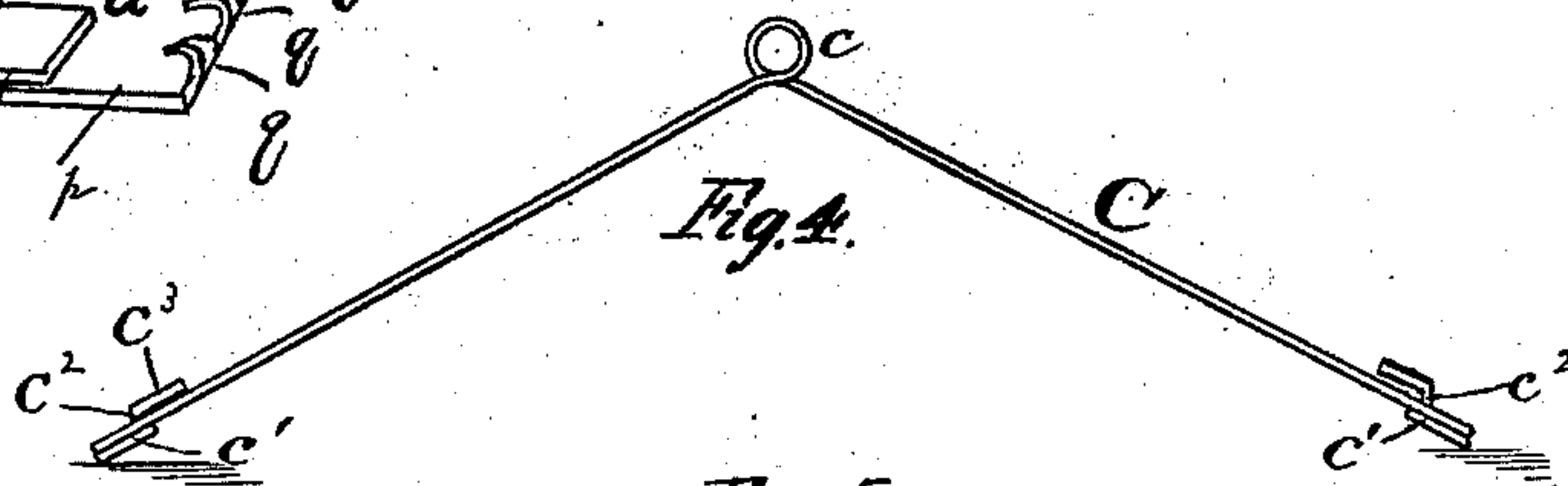
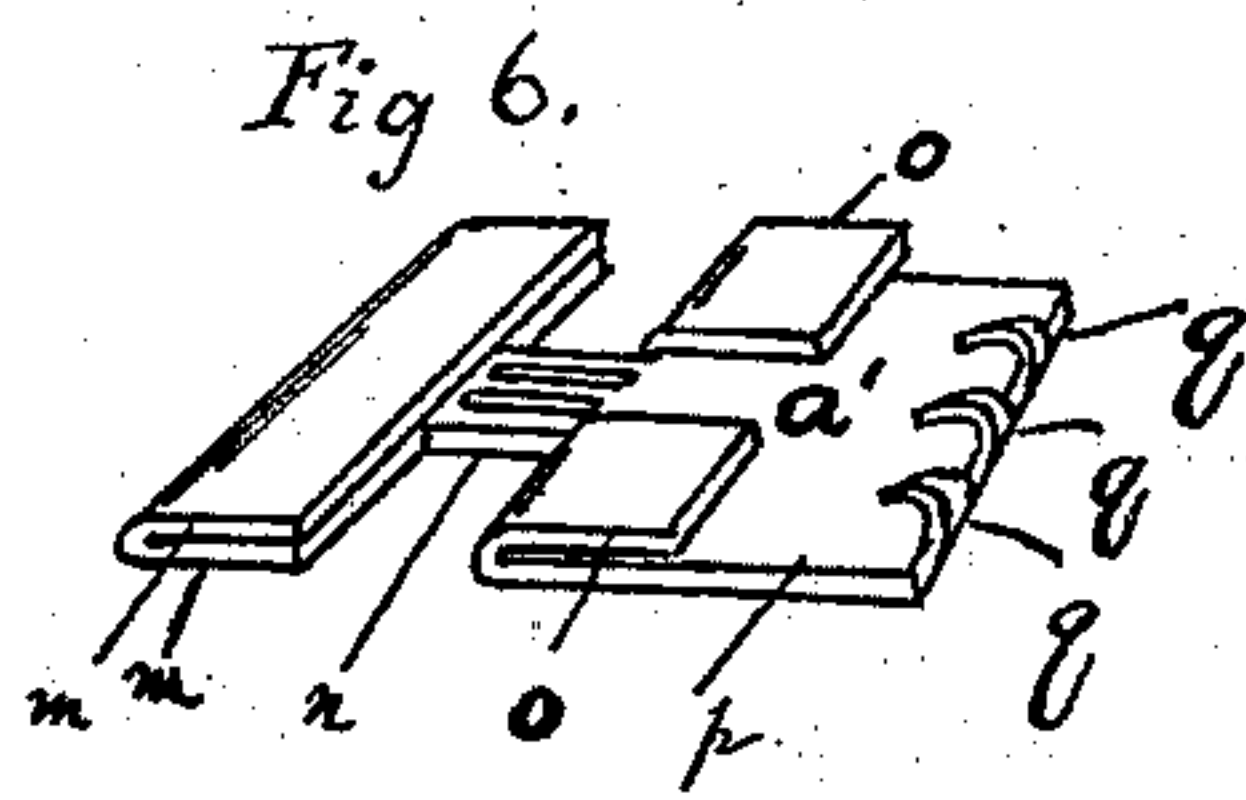
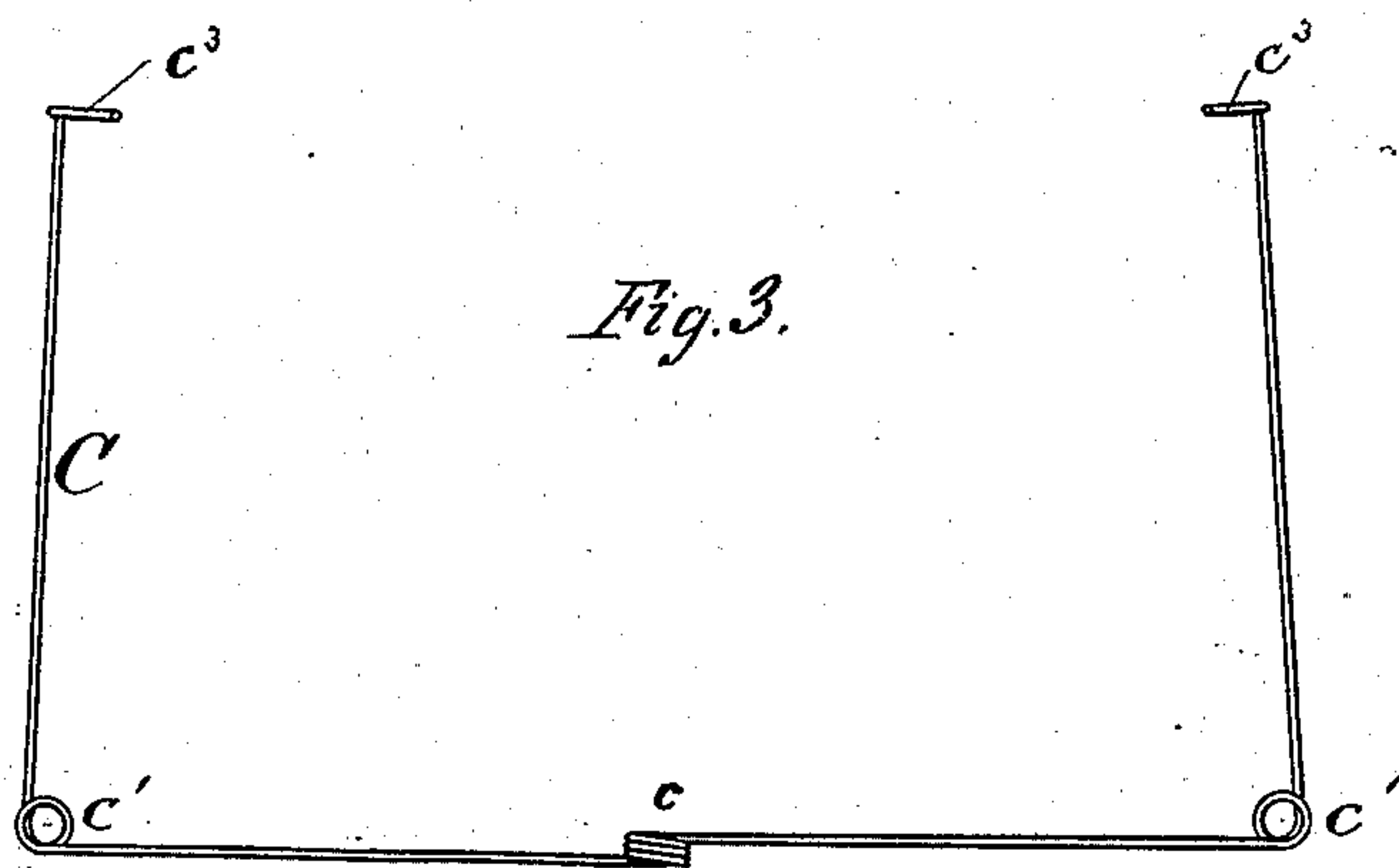
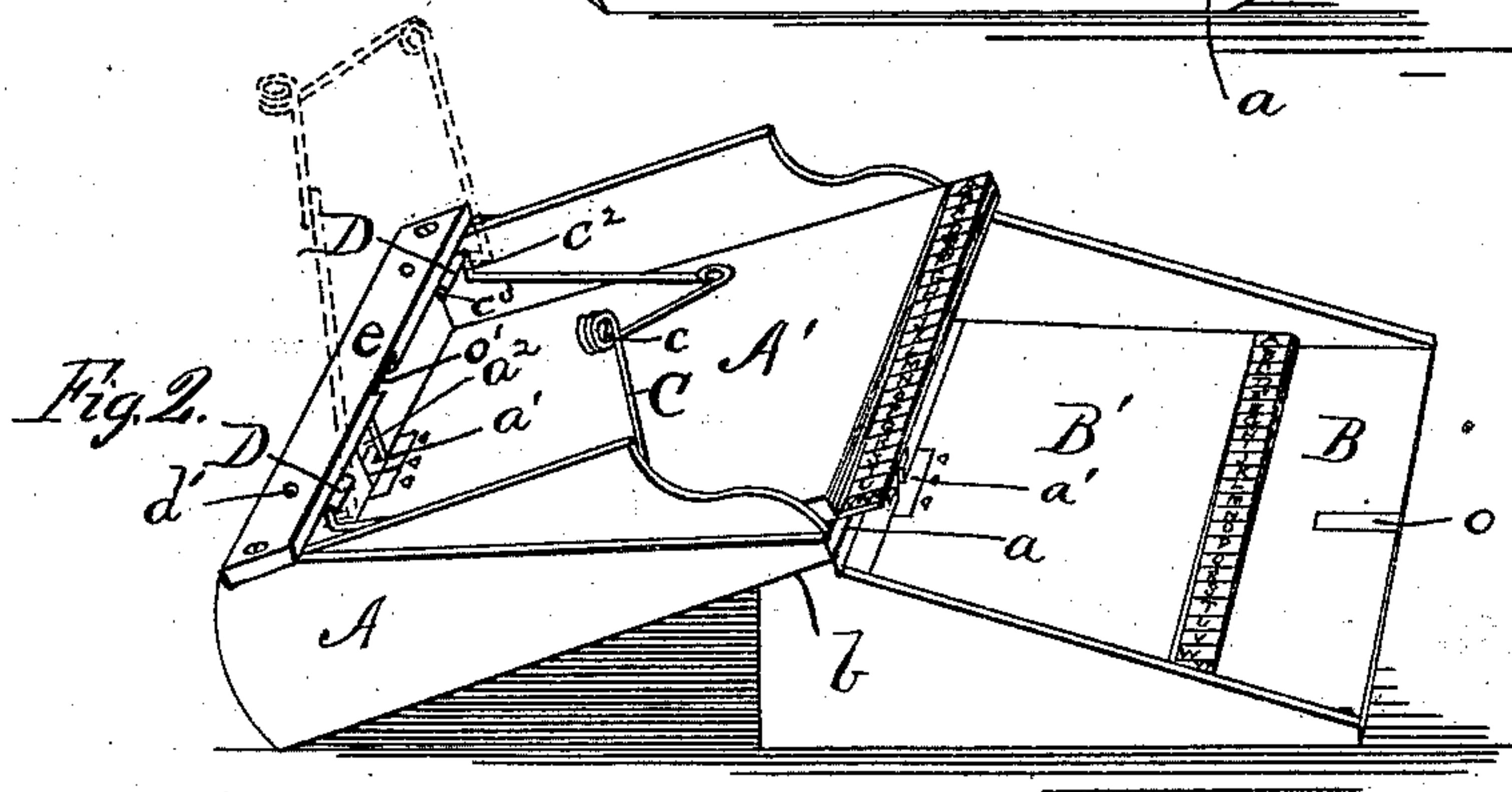
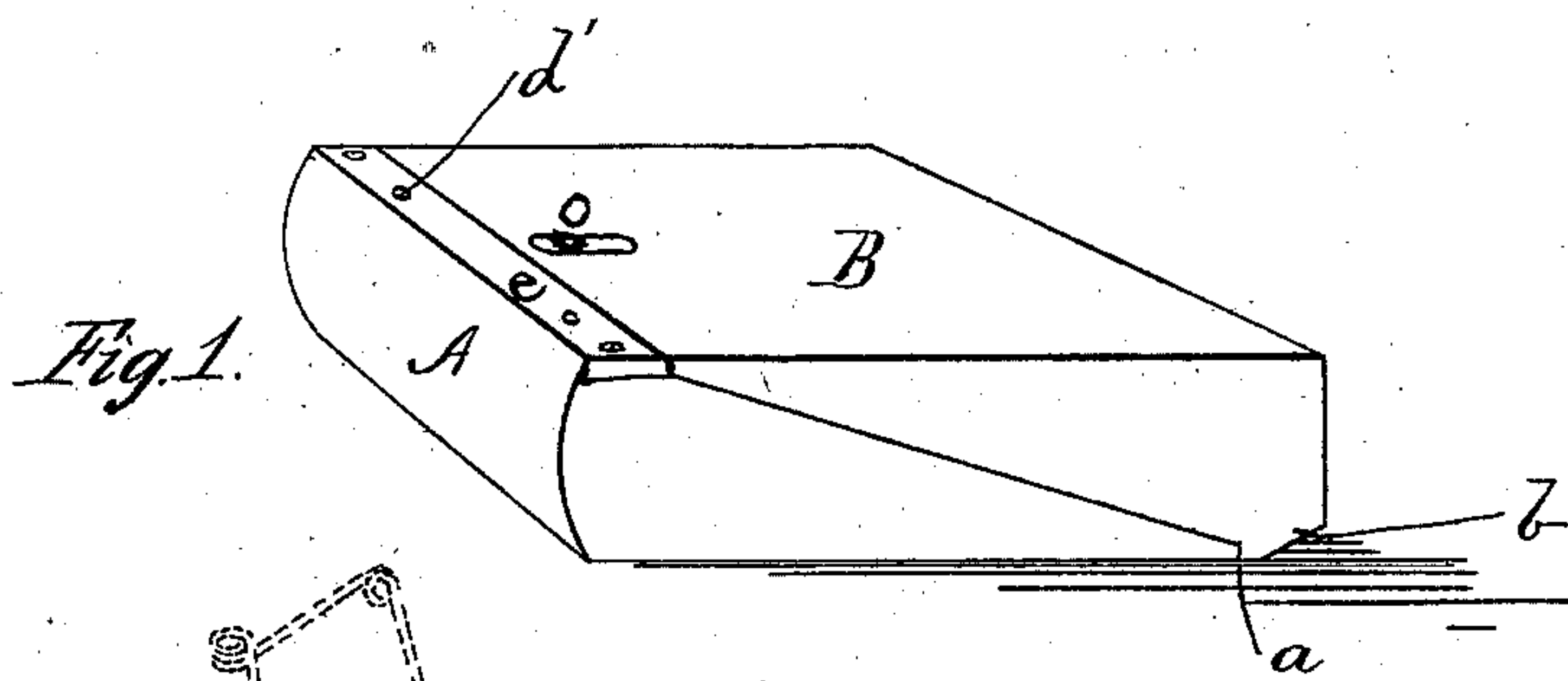


W. A. AMBERG.
Letter-File.

No. 224,981.

Patented Mar. 2, 1880.



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UNITED STATES PATENT OFFICE.

WILLIAM A. AMBERG, OF CHICAGO, ILLINOIS.

LETTER-FILE.

SPECIFICATION forming part of Letters Patent No. 224,981, dated March 2, 1880.

Application filed November 1, 1879.

To all whom it may concern:

Be it known that I, WILLIAM A. AMBERG, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Letter-Files; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and the letters of reference marked on such drawings, like letters indicating like parts wherever used in said drawings.

This improvement relates to that class of letter-files or temporary binders in which an expansible index is used in combination with an inclosing case or box.

The invention consists, first, in the combination, with a covered case or box, of two expansible indexes, one of which may be used for one description of letters or papers and the other for papers of another description—as, for instance, postal-cards—and both compressed by a single spring; second, in a covered box having an index in the body and an index in the cover, so that when opened both indexes are exposed and access given to both; third, in so constructing the box, hinging and dividing it, that when the cover is thrown back it will place the body or main index in an inclined position and leave the front edge thereof projecting and easily accessible, thus lessening the liability of the contents slipping out and rendering the insertion of letters easier; fourth, in the construction of the compression-spring and its attachment to the case; fifth, in the peculiar construction and mode of attachment of the T-shaped metal hinging-tag, whereby the index-leaves are retained in the case.

The drawings show, at Figure 1, a perspective of my improved file closed, and at Fig. 2 a perspective of the same open. Figs. 3 and 4 are detail views of the compressing-spring. Fig. 5 is a detail section, showing the construction and attachment of the spring-hinges. Fig. 6 is a detail, showing the construction of the T-shaped tag.

In said drawings, A represents the body, and B the cover, of the inclosing-case, the dividing-line between which is a diagonal one,

as clearly shown, the hinges being located at the front upon the bottom, as at *a*.

The body contains an expanding loose-leaved index, A', secured thereto by T-shaped tags *a'*, (presently to be more fully described,) fastened each to one of the index-sheets and inserted in a slot, *a''*, in the vertical back of the body portion. The cover contains a similar index, B', similarly secured therein. The method of fastening the indexes in the box are, however, immaterial in the use of most of the features of my invention, and many devices now known may be employed for that purpose instead of the fastening shown.

While I designate the two parts as body and cover, respectively, yet it will be noticed that they are nearly coequal in size and correspond very nearly in shape, and that the cover, when thrown back so as to lay bare its index, forms an open three-sided receptacle similar to the body. This feature permits me to utilize the cover as well as the body as an index-holder.

This peculiarity of the cover also causes it, when opened, to raise the front edge of the body, as shown in Fig. 2, and thereby render access to the index therein very easy, as well as to remove it beyond danger of interference with the file in the cover. The inclined position thus given to the index serves the very useful purpose of preventing the papers from working out from between the index-leaves in handling, and particularly when the hand is withdrawn after inserting a paper.

It will be noticed in Fig. 2 that the lettered edge of the body-index projects over beyond its support. This much facilitates the use of the index, because the finger is enabled to depress the leaves under the one it is desired to raise, and it also frequently saves the use of more than one hand in separating the index.

C is the spring used to compress both of the indexes and their contents. It consists of a single piece of wire, coiled at *c*, with a coil, *c'*, upon each limb, and bent at right angles and extending backward from that point to the upward bend, *c''*, from which latter portion the pivot-points *c'''*, upon which the spring swings, extend. The extreme point of these pivots is bent so as to be slightly eccentric to the center upon which the spring oscillates, as shown

in Fig. 3, and each point is inserted in a swinging bracket or bearing, D, which may be composed of a turned-over piece of metal, *d*, secured to the body by a pivot, *d'*, upon which it may have the limited swing desired.

The combination and construction described of the spring and its swinging hinges produce the stay of the spring either in the lower position shown in Fig. 2 by continuous lines or in the raised position shown by dotted lines, and disincline it to rest in any intermediate position. The central coil, *c*, comes in contact with the cover-index, or with the cover itself when its index is not used, while the coils *c'* rest upon the body-index.

When the hinges uniting the body and cover are not exactly at the corner, a bevel, *b*, should be given to the cover, so the hinges may not be strained, and so the raised side of the body may have a broad support when raised by the cover, as in Fig. 2. This feature, however, is optional.

The T-shaped metal tags hereinbefore alluded to, and lettered *a'*, are stamped out of sheet metal of the form shown at Fig. 6. The upper portion or head of the T consists of two thicknesses, *m m*, preferably folded together to give greater strength. The shank *n* is preferably corrugated to stiffen it. The flat base-piece *p* has attached to it shoulder-pieces *o o*, which are cut out of the metal in the formation of the shank. These shoulder-pieces are bent down over the edge of the index-sheet, and act, in conjunction with the perforating-points *q q*, to secure the tag to the sheet, the perforating-points being caused to perforate the paper of the sheet and then bent down thereon toward the shoulder-pieces. The tag thus applied and secured is held firmly and without any liability to twist or move from side to side upon the sheet. The head portion rests loosely in the retaining-slot *a*², being free to rise in such slot as the index is filled, but securing the index-leaves in place in the case at all times.

When the index or indexes are nearly full the spring may be found in the way, and if so may be removed by slipping the ends out of the sockets *d*.

As files of this class are made to contain papers of all sizes and many shapes, the indexes as they are filled naturally become thick at the back and remain thin in front. By em-

bodiment such indexes in both cover and body I am enabled to utilize space, because when closed the thick and thin of one index rests over the thin and thick of the other.

That part of the box which covers the slot wherein the index-tags are inserted—to wit, the part marked *e*—may be made removable, so as to permit the transfer of the index and its contents to a supplementary or permanent holding-case.

The box is locked by sliding the thumb-bolt *o* into the recess *o'*. Of course many other devices are capable of use for this purpose, and they may be located upon the ends rather than the top, if preferred.

I claim—

1. The combination, with a covered case or box, of two expanding indexes compressed by a single spring, substantially as specified.

2. A covered box having an index in the body and another in the cover, both of which are exposed by the opening of the box, substantially as specified.

3. The box divided into body and cover sections, which are hinged together at the bottom, substantially as shown, whereby, when the box is opened, the cover is caused to pass under and elevate the body portion, essentially as specified.

4. The compressing-spring swinging upon its ends as pivots, and having a central coil, *c*, and a coil, *c'*, upon each limb, in combination with the covered box having an expandible index or indexes compressed by said spring, substantially as specified.

5. The combination, with a file-box, of a swinging spring, the pivoted ends of which are bent eccentrically, and swinging journals or bearings for said spring pivoted to the box, substantially as set forth.

6. The combination, with the box A, of the index A', projecting over the edge thereof, substantially as set forth.

7. The sheet-metal T-shaped tags, adapted to rest in the slot, as shown, and hold the index-leaves in place, made with a T-head and shank, base *p*, shoulders *o*, and puncturing-points *q q*, substantially as set forth.

WILLIAM A. AMBERG.

Witnesses:

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