

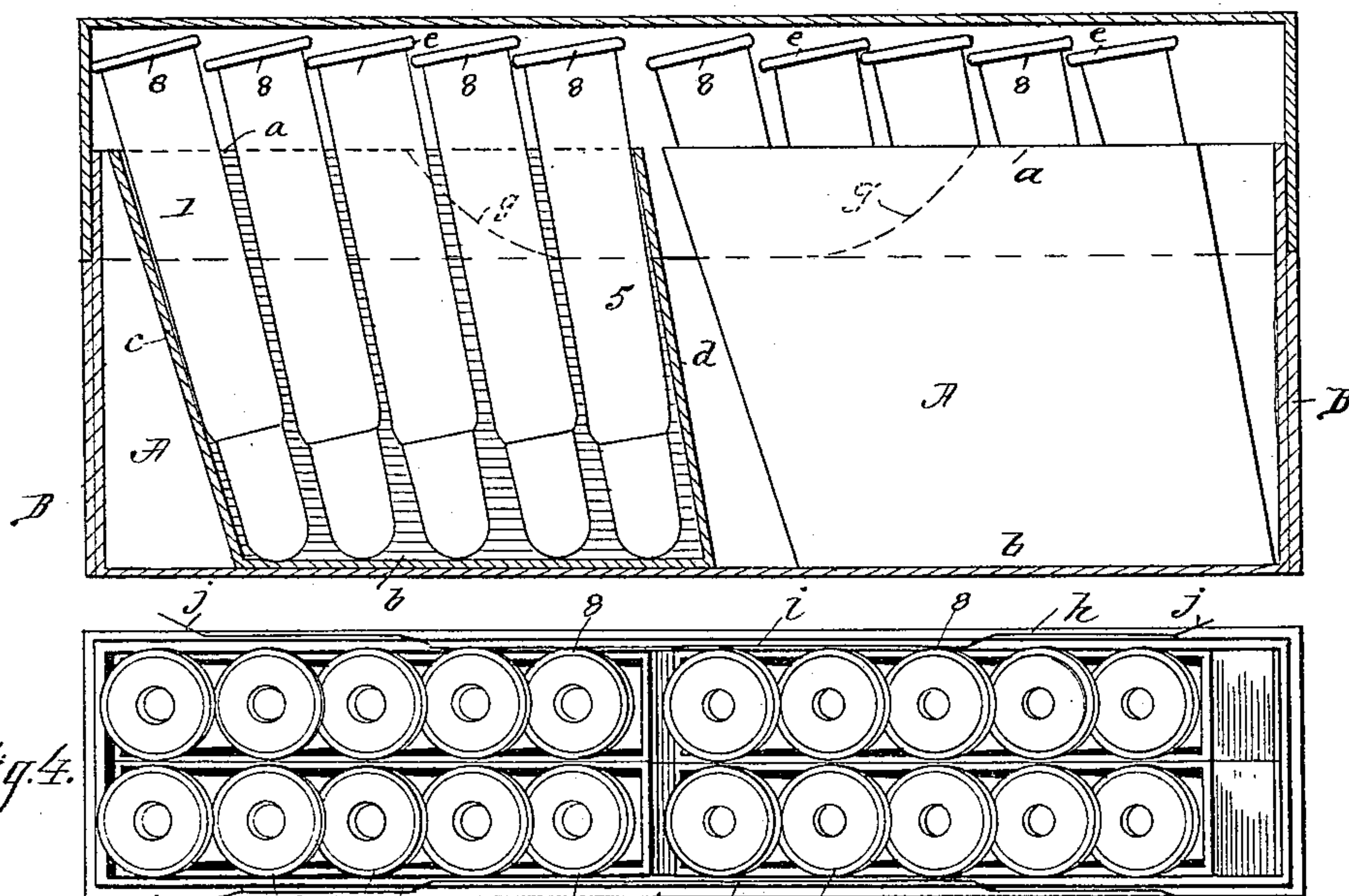
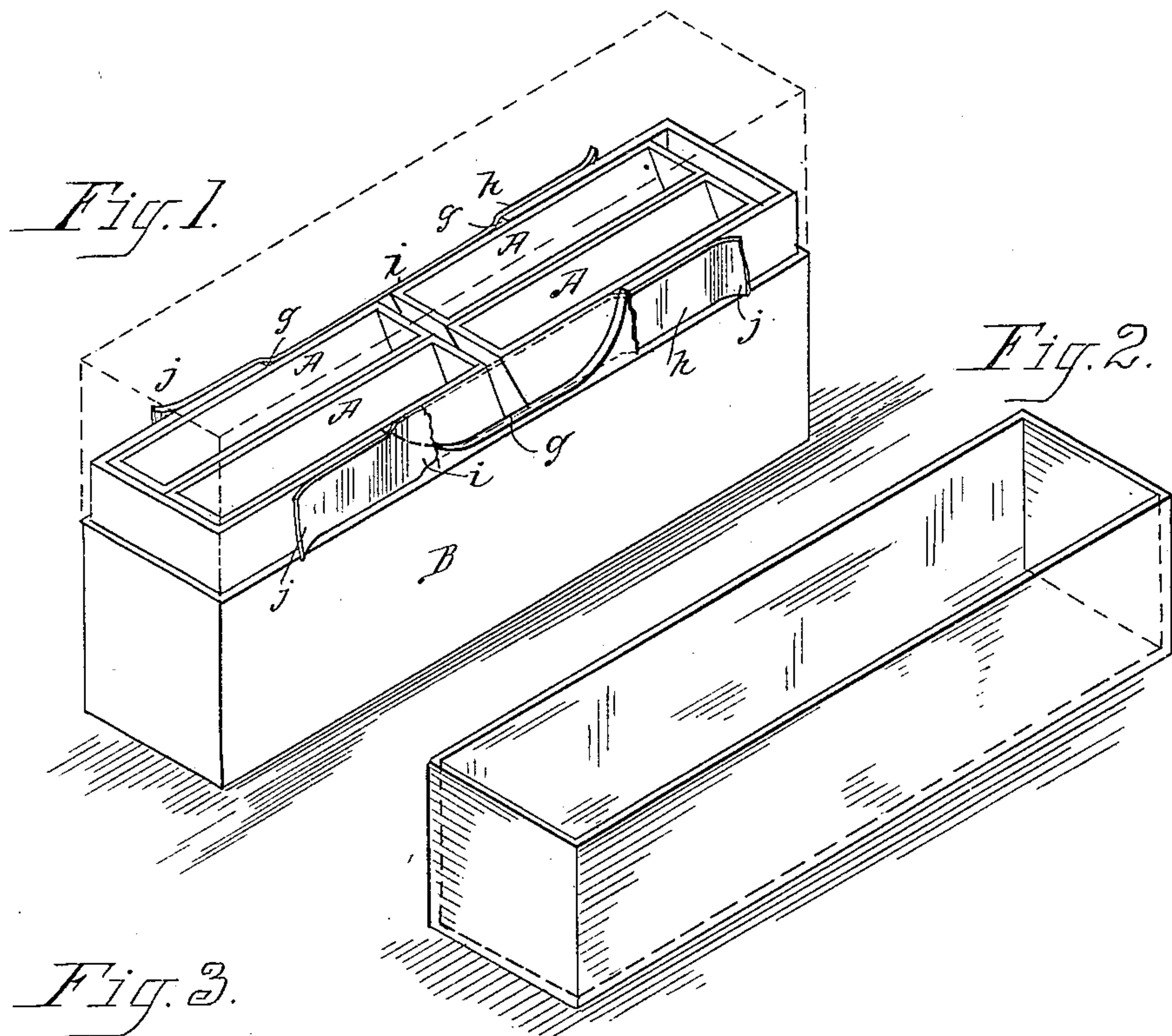
(No Model.)

2 Sheets—Sheet 1.

L. F. BRUCE.  
CARTRIDGE BOX OR CASE.

No. 452,447.

Patented May 19, 1891.



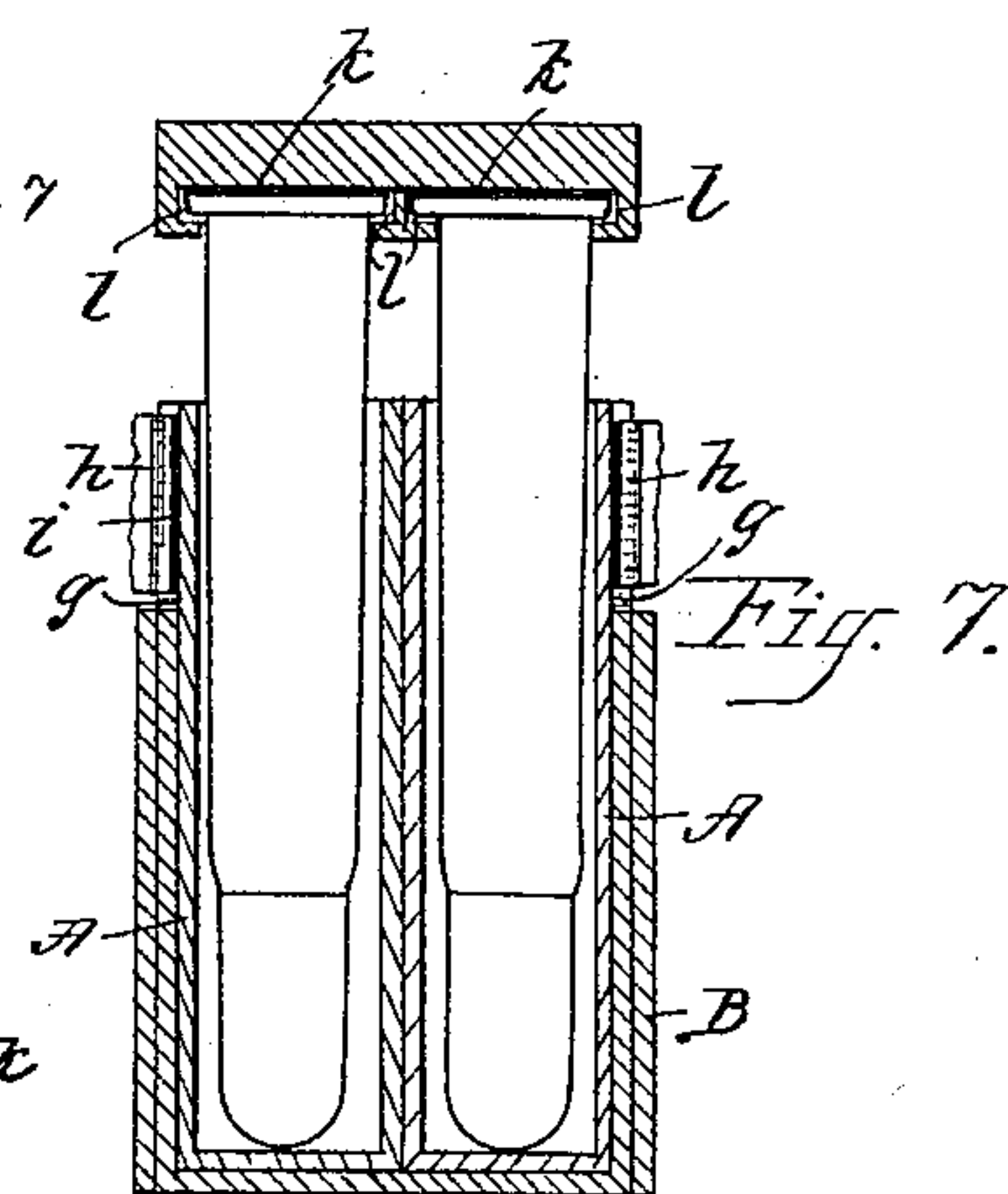
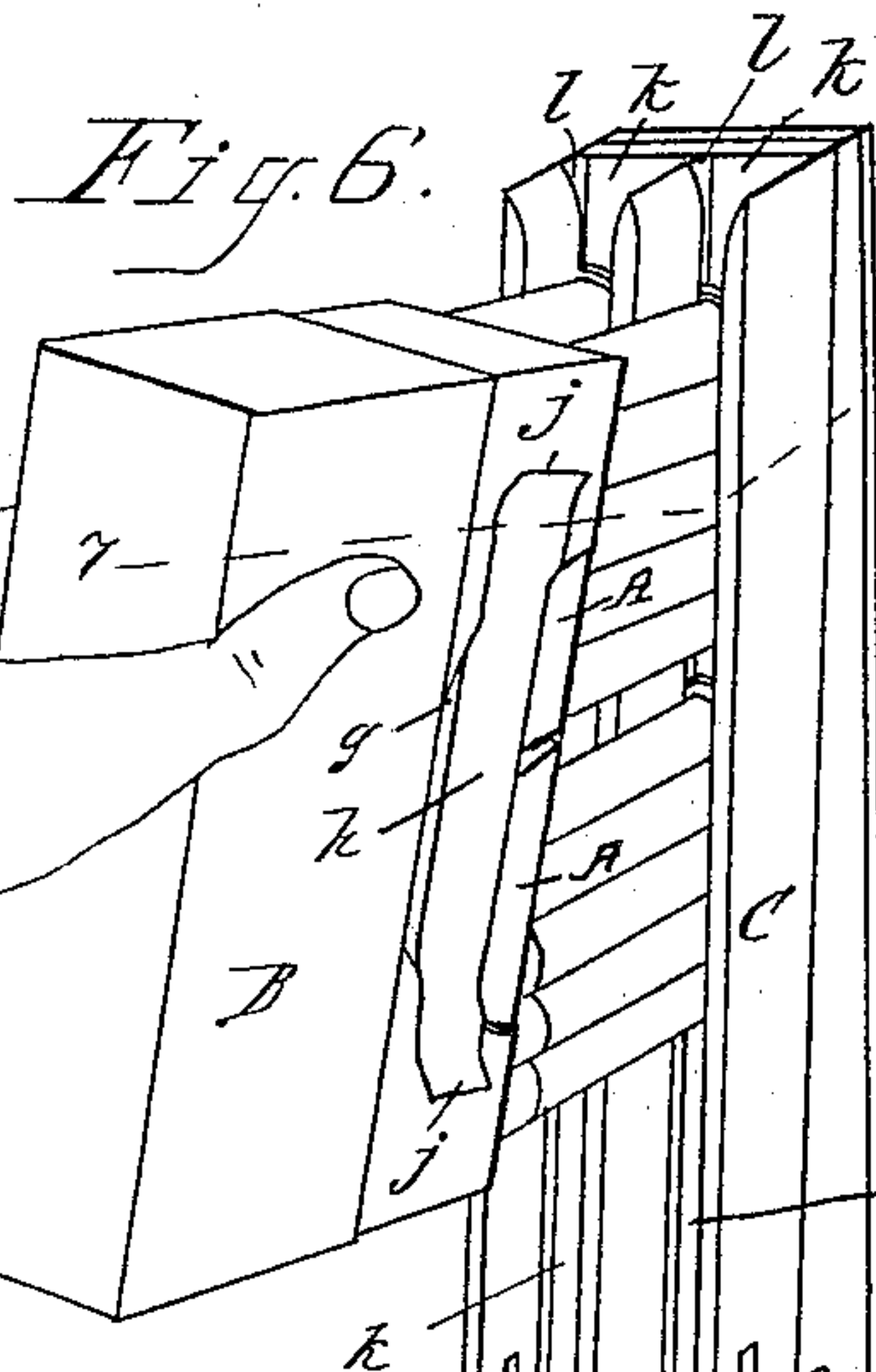
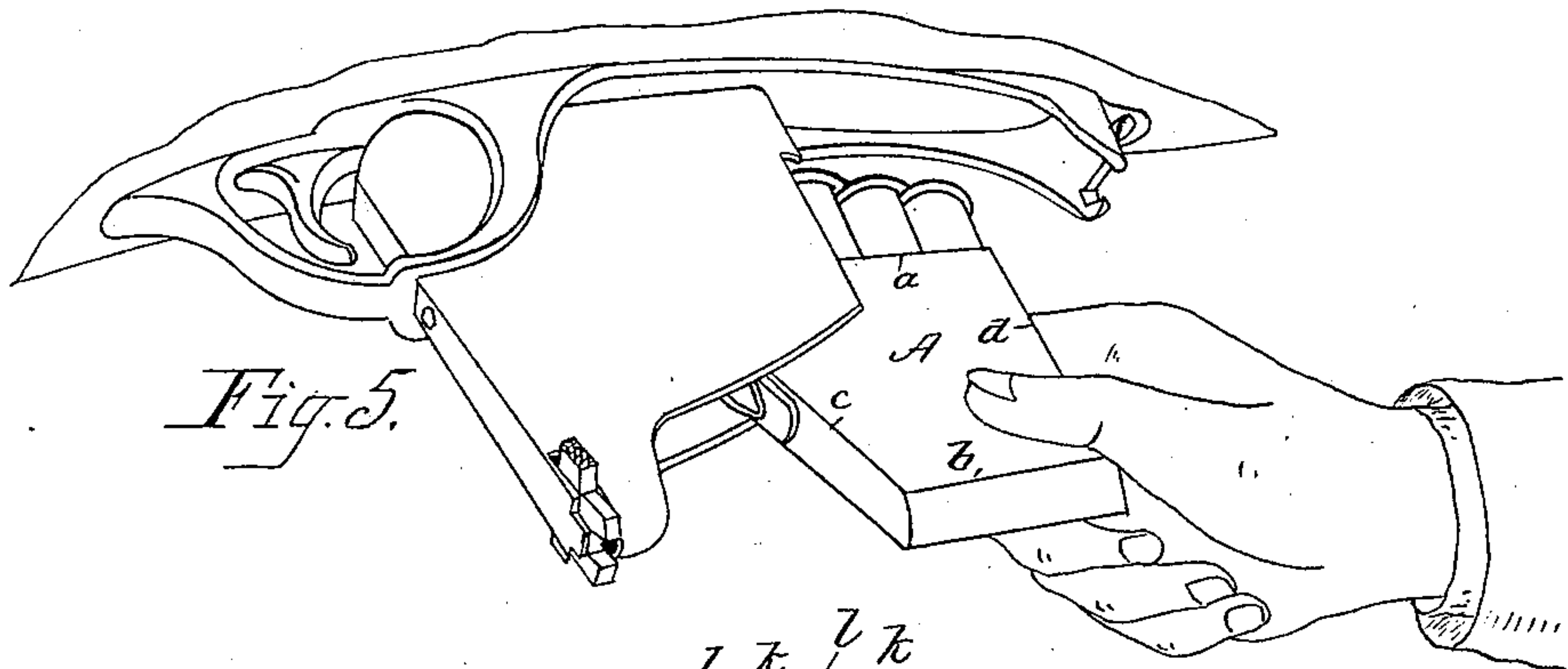
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# UNITED STATES PATENT OFFICE.

LUCIEN F. BRUCE, OF SPRINGFIELD, MASSACHUSETTS.

## CARTRIDGE BOX OR CASE.

SPECIFICATION forming part of Letters Patent No. 452,447, dated May 19, 1891.

Application filed December 6, 1889. Renewed October 6, 1890. Serial No. 367,278. (No model.)

*To all whom it may concern:*

Be it known that I, LUCIEN F. BRUCE, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Cartridge Boxes or Cases, of which the following is a specification.

This invention relates to improvements in boxes or cases for containing cartridges for breech-loading weapons, the object being the provision of such a box as will be of the utmost convenience to the user, rendering most easy the rapid and practically simultaneous entrance of the cartridges into the magazine of a breech-loading fire-arm and the withdrawal of the box away from the cartridges and from the magazine when it is desired to charge a magazine or when desired to charge a machine-gun, rendering most easy the introduction and engagement of the cartridge-heads with the grooved ways of the feeder-guide and the almost simultaneous withdrawal of the box or a series of them containing the cartridges from the said inclosed cartridges. The form and construction of the cartridge-inclosure are those which will particularly commend themselves to persons who have to construct the packages and who have to handle them in a mercantile way, such packages being most simple, cheap, and easy of manufacture and compact in form and arrangement.

The invention consists in the novel form or construction of the boxes, each of which is adapted to contain a series of cartridges to constitute a charge for the magazine of a fire-arm, and also in the combination, with several of such charge-boxes, of a case common to and adapted to contain all of them and the cartridges therein inclosed, whereby the several minor charges of cartridges conduce to form a full charge for a machine-gun, all substantially as will hereinafter more fully appear.

Reference is to be had to the accompanying drawings, in which the cartridge charge box or case of this invention is illustrated, similar characters of reference indicating corresponding parts in all the views.

Figure 1 is a perspective view of the inclosures for a package of cartridges. Fig. 2 is a view of the cover for entirely closing the

packet. Fig. 3 is a sectional elevation of one of the cartridge-packets, and Fig. 4 is a plan view thereof, the cover being removed. Fig. 5 is a perspective view of the under portion of a magazine, the pivoted pocket-magazine thereof being swung downwardly and outwardly to receive a charge, said view also showing the manner of introducing a charge of cartridges contained in one of my improved cartridge-boxes into the said magazine. Fig. 6 is a view of a part of the hopper of a machine or Gatling gun having the feeder-guide attached thereto, and showing the manner of introducing all of the cartridges in a packet to the said guiding action of said feeder; and Fig. 7 is a horizontal sectional view through the said feeder-guide and through the cartridge-inclosure, taken on the line 7 7, Fig. 6, said view also illustrating the engagement of the rims of the cartridge-shells with the grooves provided in the feeder-guide.

As shown, each minor charge-containing box A has its opposing sides, which are parallel, of trapezoidal form—that is, the upper and lower edges *a* and *b* are parallel, while one or both of the opposing end lines *c* and *d* of the box are oblique to said upper and lower edges and are slightly angular to each other, said end lines converging downwardly. The amount of convergence of said end walls of the box is to be made to correspond substantially to the convergence of the extreme ones 1 and 5 of a series of tapering cartridges *x*, when all of the series are placed together with their points in a common line and their sides lying upon or near to each other, as seen in Fig. 3. Thus it will be seen that with, say, for instance, the left-hand end wall of the box having an inclination greater than that of the right-hand end, and the cartridge 1 placed therein to lie along said wall and rest by its point upon the bottom *b* of the box, the rim *e* of the cartridge-shell, which is somewhat above the upper edge of the box A, will stand in an oblique plane with its right-hand extremity the higher. Then the rims of the succeeding cartridges, when such cartridges are placed in the box, lie obliquely or in inclined planes, the right-hand edge of each overlying or standing above the left-hand edge of the rim next to the right thereof;



and yet the lateral extremities of each and all of the cartridge-rims, which portions are indicated at 8 in both the elevation and the plan view, Figs. 3 and 4, are in one plane, and which in the carrying out of the invention will normally be substantially parallel with the bottom of the box A.

In an application for Letters Patent of the United States filed by me under date of March 8, 1889, Serial No. 302,550, I have described a magazine-gun comprising a pocket-magazine, in which it is desired, when the cartridges are entered therein, that they shall lie with their rims in the disposition just described, and as shown and described in said application, and from an understanding of the construction of said gun, which may be had from a reference to the specification in said application, the desirability for the described disposition of the cartridges in the magazine will be made evident, and as the relative disposition of the cartridges described is not changed in the transfer of them from the charge-box to the magazine it is now made plain why such an arrangement of the cartridges is desirable. It is plain, of course, that the overlapping of the rims is due to the fact that the axes of the cartridges are inclined to the plane on which their points rest, and were the shells not tapered the box, in lieu of being of trapezoidal form, could be of rhombic or rhomboidal form, wherein the end walls are parallel, and such a box would be well adapted for use for containing shells loaded with shot.

The essential of the box may be stated to reside in the provision of one oblique end wall; but of course where tapered cartridges are to be used it is much preferred to have the other wall converging to correspond to the combined taper of the shells, so that by this most simple means there may be no slack or space between the ends of the box to permit a shifting or chucking about therein of the cartridges.

I have in another application for patent filed by me simultaneously herewith and under date of December 6, 1889, Serial No. 332,804, particularly described a construction of magazine for a breech-loading fire-arm, the charging of which may be most advantageously accomplished when the cartridges are put up in boxes of the form shown, and in which application is set forth the desirability or necessity of having the cartridges follow each other along side by side with their rims in oblique planes and their extremities overlapping.

To carry several of the boxes holding minor charges, as has now been fully described, (about five cartridges constituting such a charge, although the charge may consist of a greater or lesser number, as required,) I provide a rectangular case B, having a breadth sufficient to include therein one or more boxes A, and in its length one or more of such boxes, but to include, either as to its length or its

breadth, as many as two of the charge-boxes, and in practice the case B is designed to carry two charge-boxes A in its width and two in its length, such a capability having been found to be the most practical, in consideration of all manners of the use of the cartridge-package. The case B is of a height about equal to that of the boxes A, so that when the said boxes are in the case the top edges thereof are about level with the top of the case. Each upper and side portion of the case midway of its length is cut out to form the thumb-opening *g*, leaving the outer sides toward the inner ends of the contained charge-boxes A A exposed and free to be grasped for removal from the case when the confining-strips *h* are removed. These confining-strips *h*, which are to be of cloth or other sufficiently tough flexible material, as shown, are pasted or otherwise confined to the outer sides of the case outside of said thumb-openings *g*, their intermediate portions *i* being inwardly deflected and confined upon the outer sides toward the inner ends of the boxes A, and whereby said boxes may be held sufficiently fast in the case for all practical purposes. The extremities of said strips are left unsecured to the sides of the case, as shown at *j*, so that they afford tabs or flaps by which the confining-strips may be readily torn from both the outer case and the inner boxes A A.

As is well known, the feeder-guide C of many machine-guns comprises, substantially as shown in Figs. 6 and 7, vertical ways in which the heads of the cartridges are entered, and laterally-formed vertical grooves *l* in the rear walls of said ways to confine the cartridges against any axial movement as they are guided down said ways. When the feeder-guide has two ways *k k* and the cartridge-package comprises boxes of cartridges arranged side by side, the cover of the case is removed and the case is grasped by its bottom, and by a proper movement of the hand the extended heads of the cartridges are entered in said ways, the rims engaging in the grooves *l* thereof, (see Fig. 7,) and when the box has been forced down along the front of the feeder about as far as shown in Fig. 6 the case is drawn outwardly and dragged away from the cartridges, leaving all the cartridges in proper positions in the guide to be led down into the gun, and during this manipulation of the inclosure for the cartridges the strips prevent the case from being drawn off and away from the boxes; but when the compound packages of the cartridges are given out to troops or users each thereof is enabled most readily to remove the cover of the case and rip off the confining-strips to free the boxes A, which may be then readily removed. It will be seen by a glance at Fig. 3 that the right-hand side-by-side boxes A, when grasped at the upper outer left-hand corners, may be swung upon their lower right-hand corners, the "rake" or inclination of the right-hand end wall permitting, when the box is in the most convenient position for ready



removal, and of course when the boxes at one end are removed the remaining boxes may be even more readily removed. The boxes A, being removed from the case B, which is to be thrown away, are placed in the cartridge-belt until brought into use by introduction into the magazine of the fire-arm, as has already been alluded to.

What I claim as my invention is—

10 1. An open-mouthed box for containing cartridges, having a width corresponding to and a height less than that of the cartridges and having its one end wall oblique or inclined, whereby the cartridges of a series in  
15 said box, an end one of which bears on said inclined wall, lie with their rims overlapping each other, substantially as described.

2. An open-mouthed box for cartridges, having a width corresponding to and a height  
20 less than that of the cartridges and of trapezoidal form, wherein the end walls of the box are in convergence corresponding to the combined taper of a series of cartridges, all substantially as and for the purpose set forth.

25 3. A package for cartridges, consisting of a series of open-mouthed cartridge-boxes, each having a width corresponding to and a height less than that of the cartridges and containing cartridges therein with their rims project-  
30 ed above the top of said boxes, combined

with an outer case having a height less than that of said cartridges and adapted to hold said several minor cartridge-boxes.

4. An inclosure for cartridges, consisting of a series of open-mouthed cartridge-boxes, 35 each having a width corresponding to and a height less than that of the cartridges and arranged end to end, combined with a case adapted to contain said cartridge-boxes, having a height less than that of the cartridges 40 and provided with the side thumb-openings, and the removable confining-strips secured to said outer case and to said cartridge-boxes, substantially as and for the purpose described.

5. A charge for a magazine small-arm, consisting of an open-mouthed box for containing cartridges, having a height less than that of the cartridges and having the end walls of the box in convergence, as and for the purpose 45 described, and a series of cartridges by their points resting on the bottom of the box and having their rims projected above the mouth of the box and overlapping each other, as described. 50

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