

No. 629,908.

Patented Aug. 1, 1899.

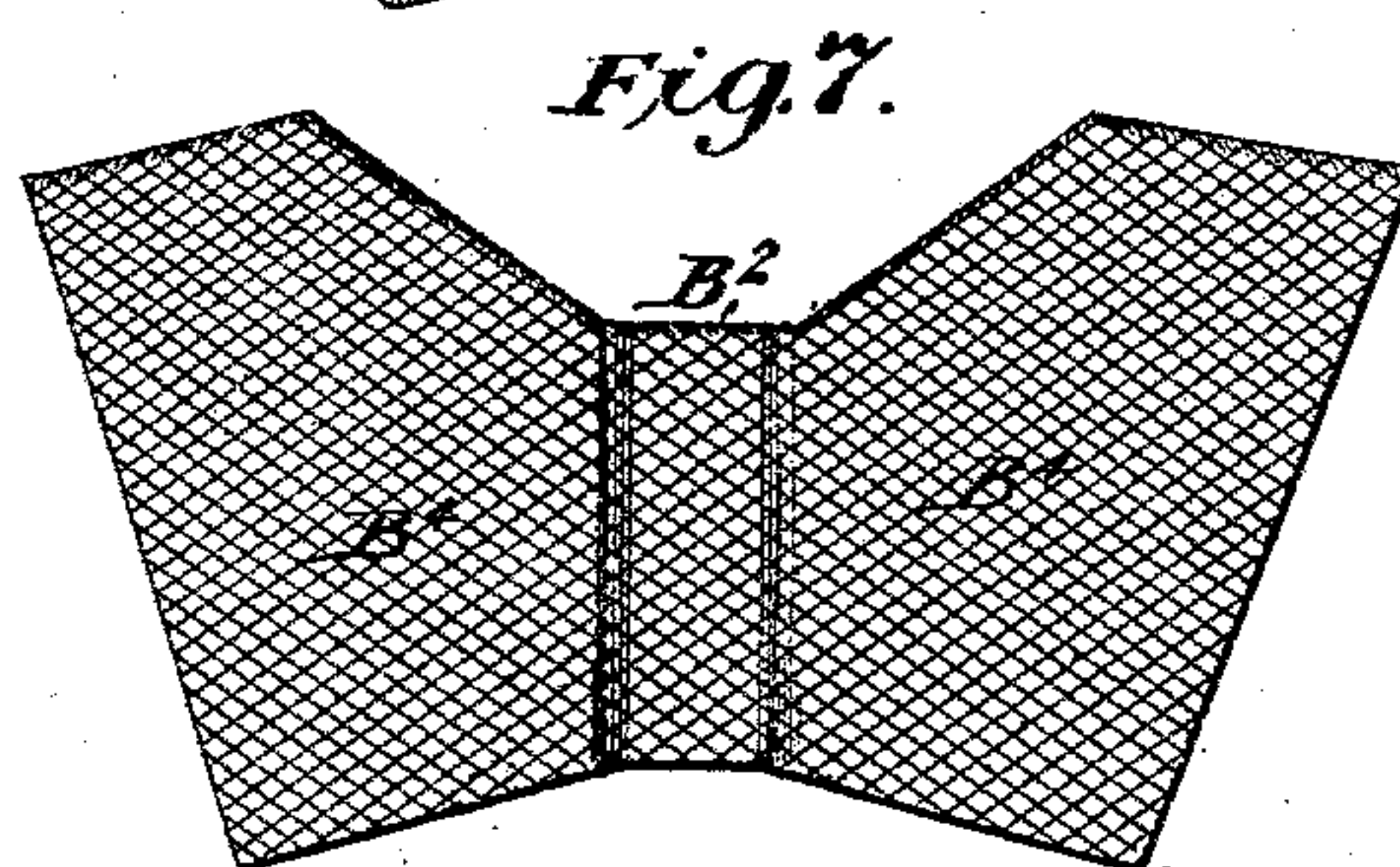
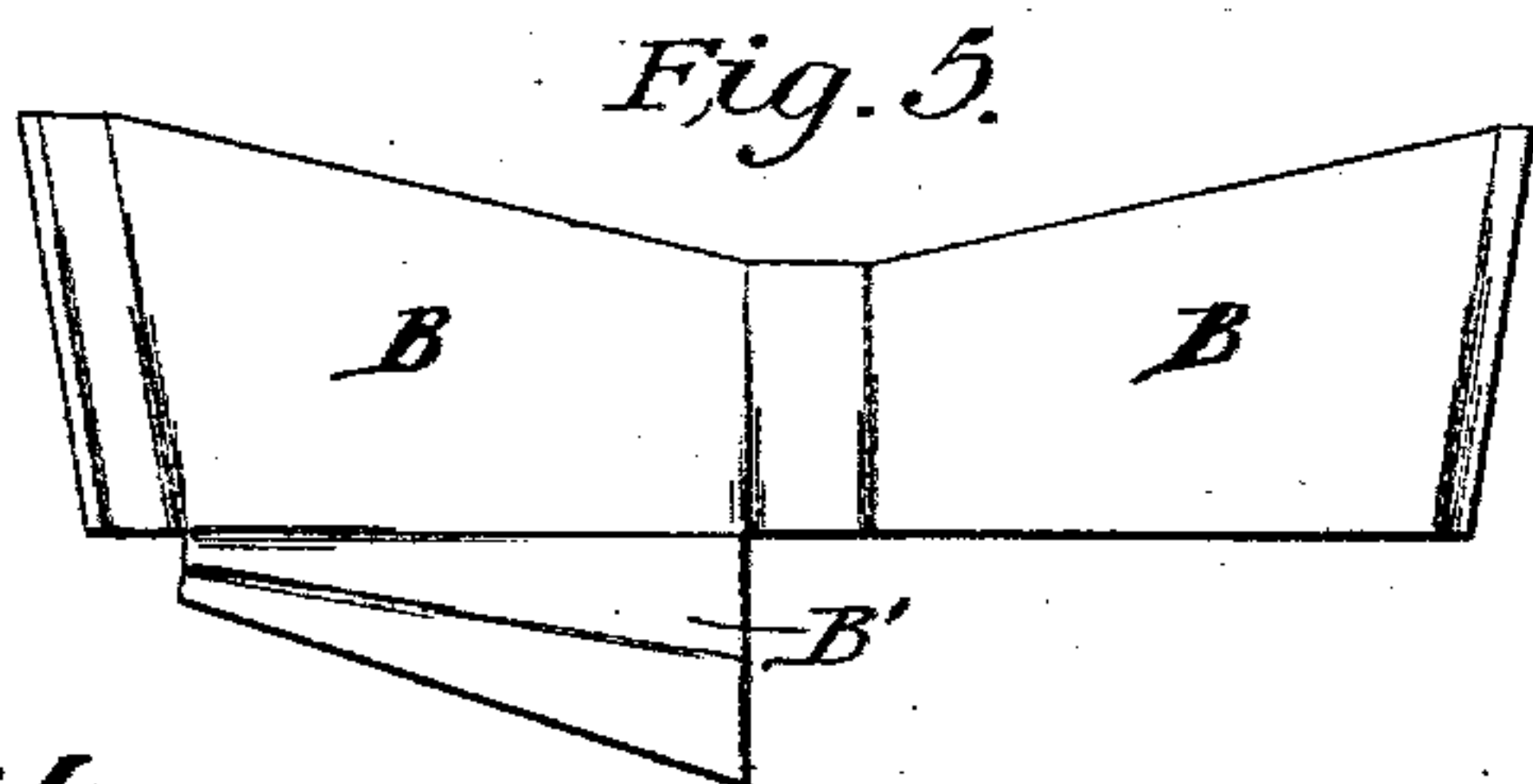
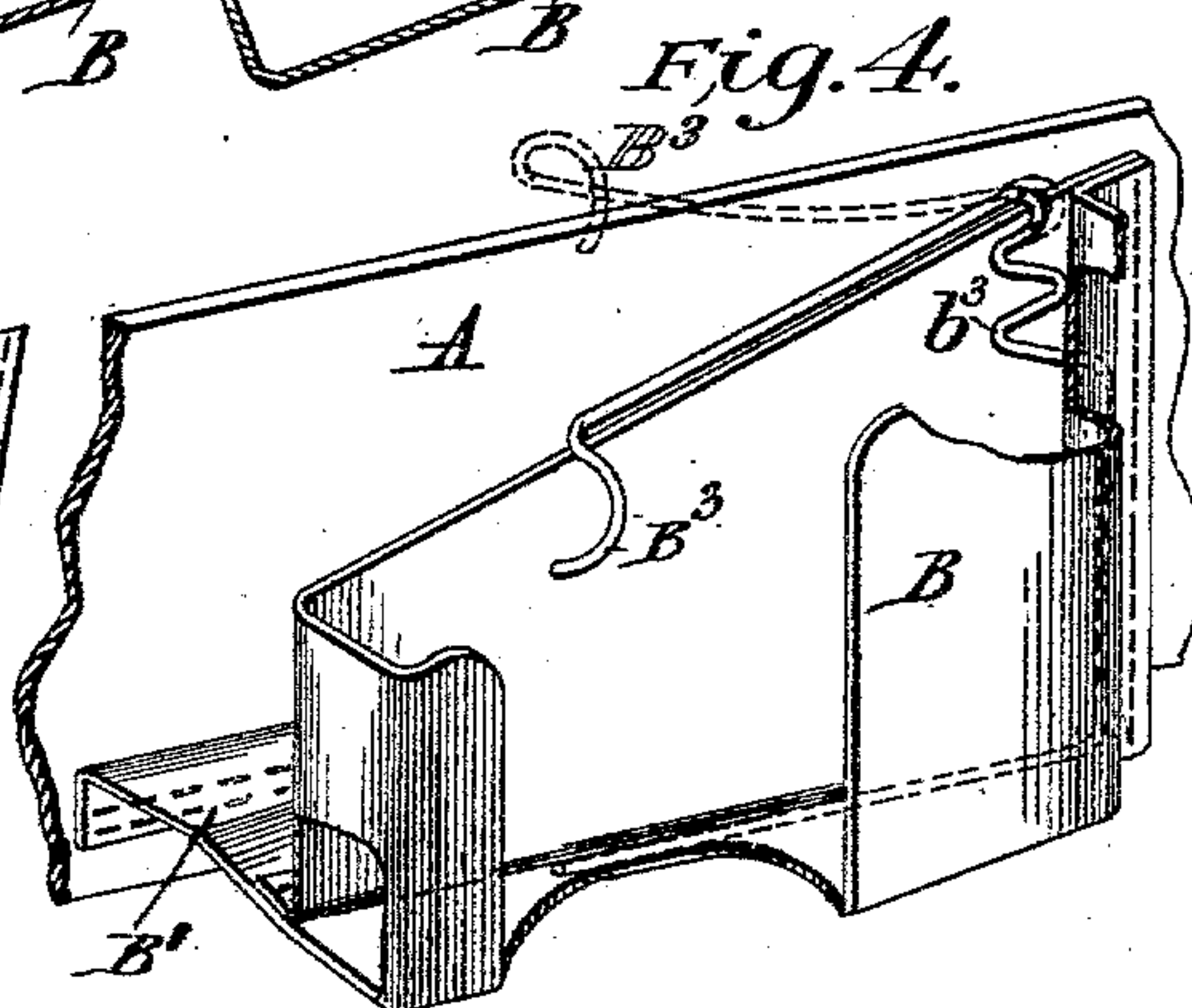
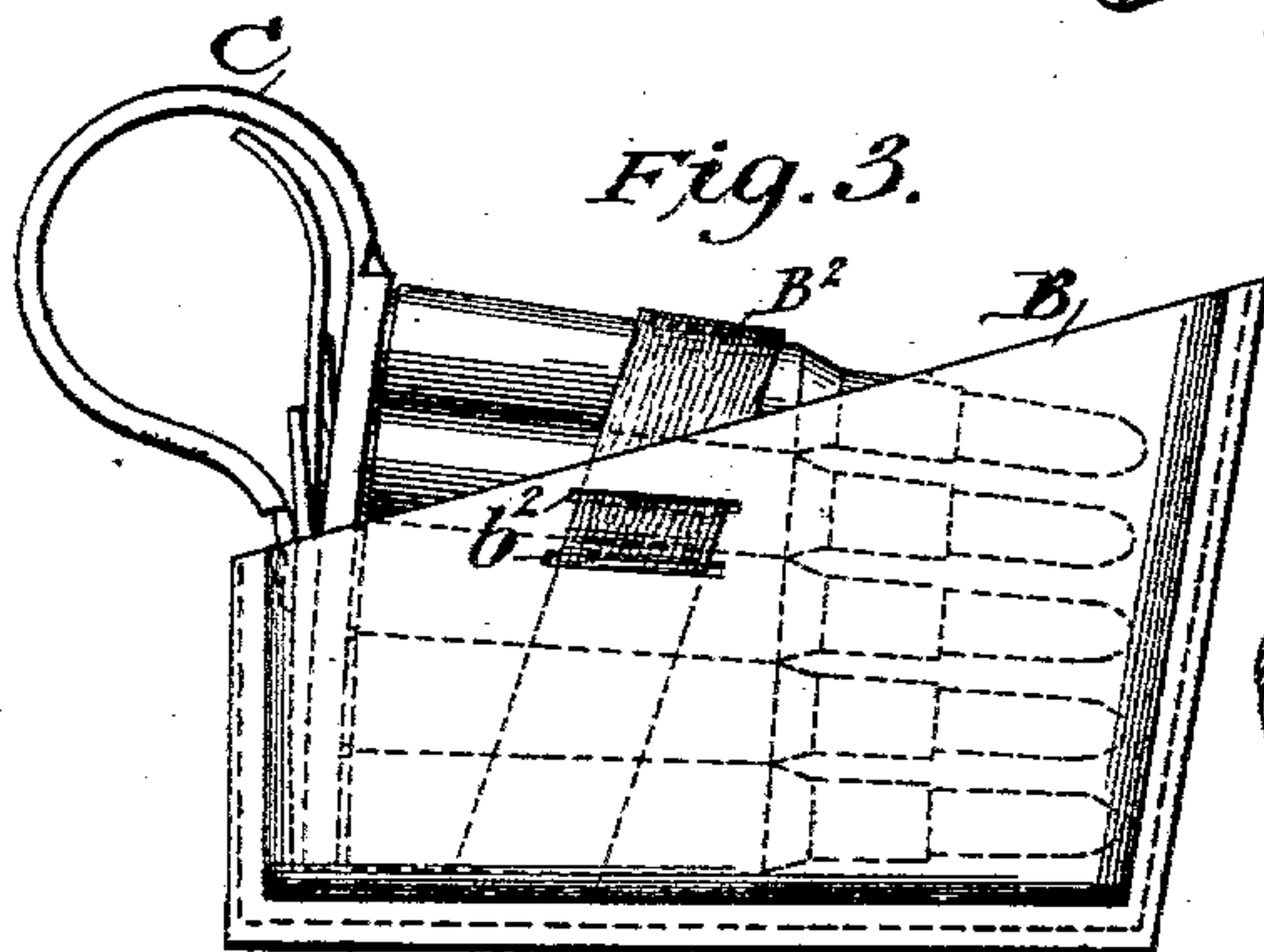
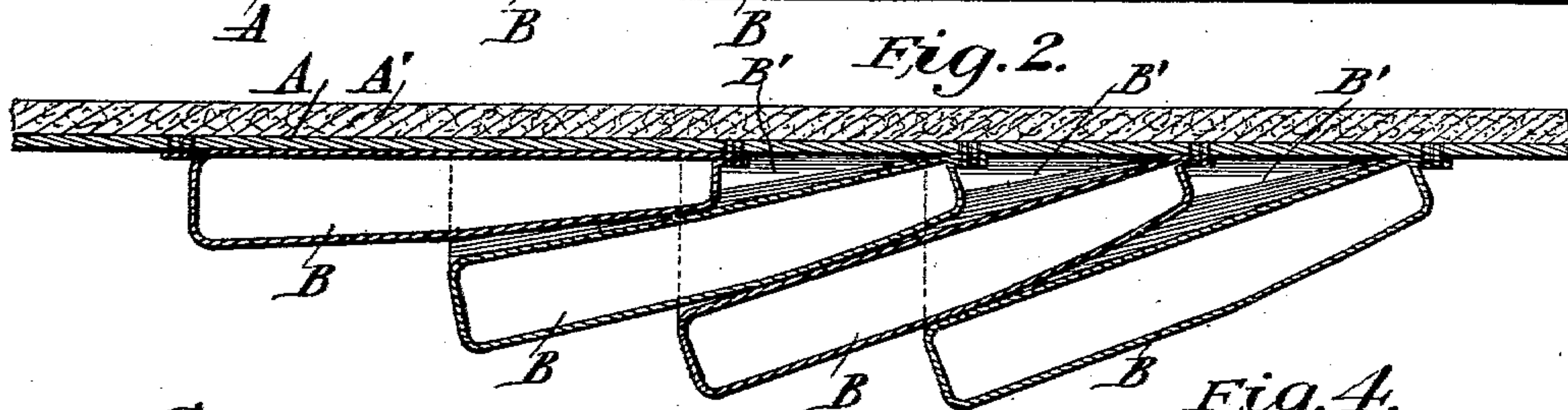
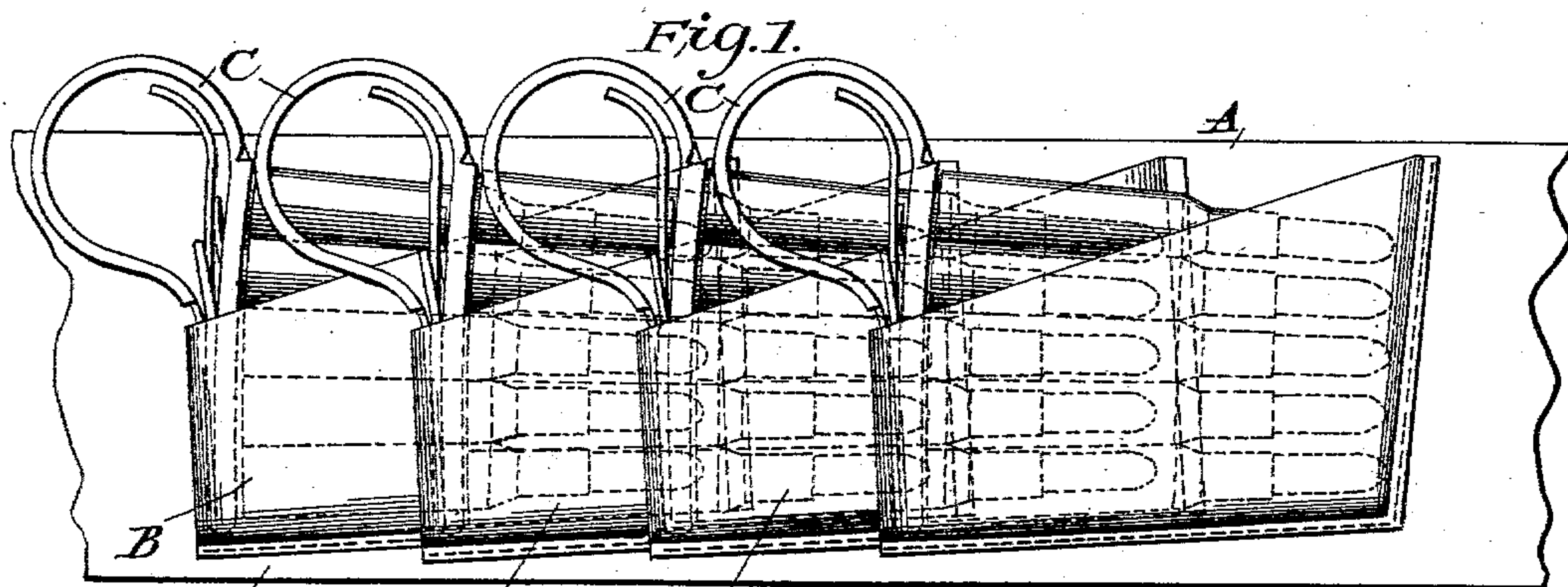
S. N. McCLEAN.

CARTRIDGE BELT.

(Application filed Oct. 11, 1897. Renewed Dec. 5, 1898.)

(No Model.)

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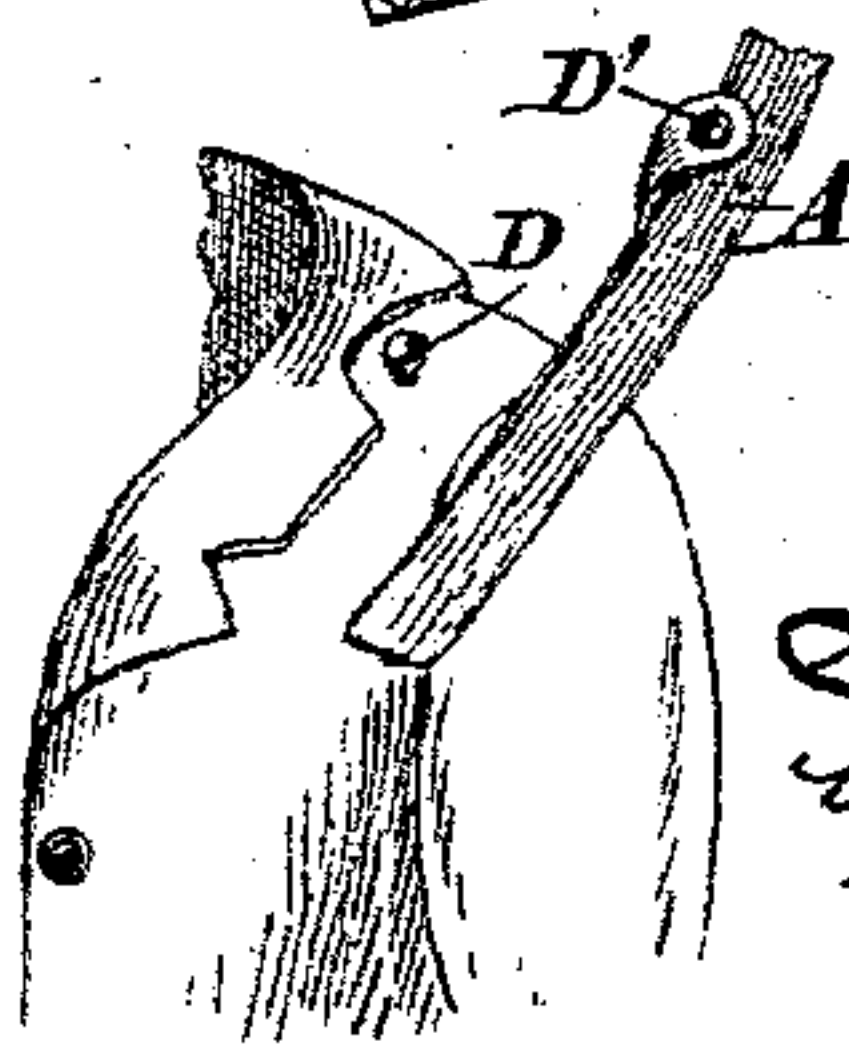


Witnesses.

Chas. H. Baker.

R. A. Balderson.

Fig. 6.



Inventor.

S. N. McClean

by J. T. Cameron  
att'y.



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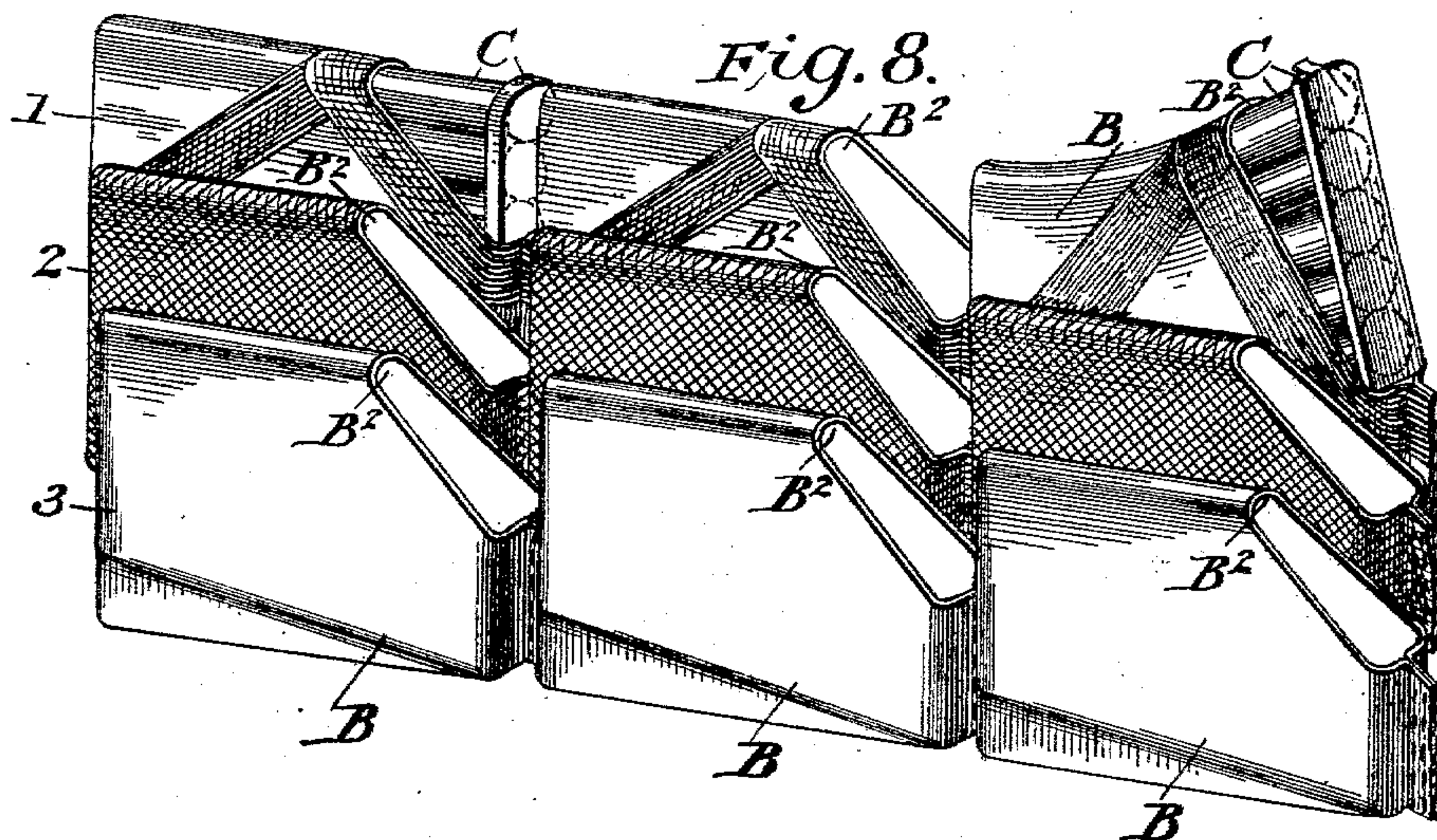
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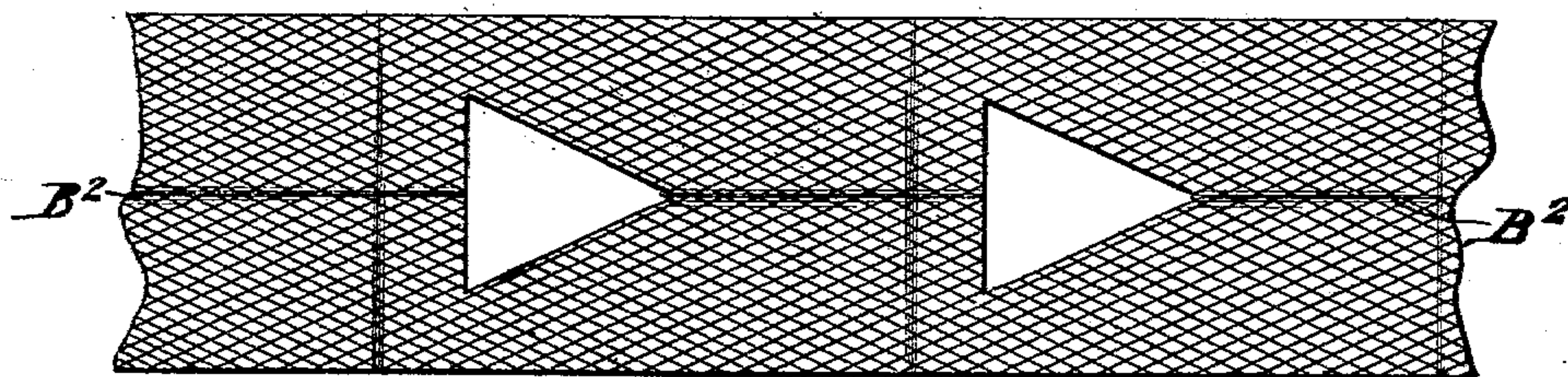
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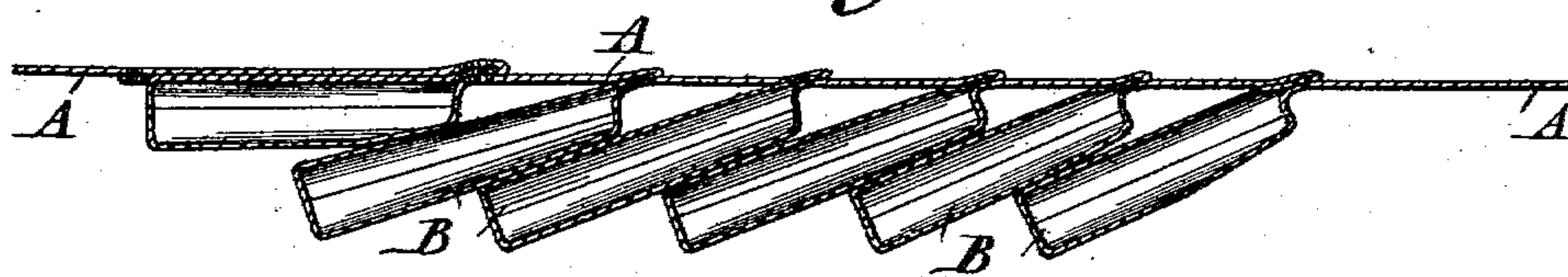
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*Fig. 9.*



*Fig. 10.*



Witnesses.

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# UNITED STATES PATENT OFFICE.

SAMUEL N. McCLEAN, OF WASHINGTON, IOWA.

## CARTRIDGE-BELT.

SPECIFICATION forming part of Letters Patent No. 629,908, dated August 1, 1899.

Application filed October 11, 1897. Renewed December 5, 1898. Serial No. 698,372. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL N. McCLEAN, a citizen of the United States, residing at Washington, in the county of Washington and State of Iowa, have invented certain new and useful Improvements in Cartridge-Belts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to cartridge-belts and certain improvements in connection therewith, and more especially to that class of cartridge-belts intended to receive, retain, and release a cartridge-package or series of cartridge-packages.

The term "cartridge-package" is used here and throughout the specification and claims to mean a plurality of cartridges held in correlation by a cartridge-packet, cartridge-clip, cartridge-holder, magazine-filler, or other device.

The object of my invention, viewed in the entirety of its several parts, is to construct a cartridge-belt in which the movements involved in handling the ammunition shall form the basis of the belt's construction.

A further object is that the relation of the belt to the bearer and the relation of the cartridge-package to the belt shall be such that a single, convenient, and easily-made movement shall suffice to either insert or remove the cartridge-packages from the belt or to transfer them from the belt to the weapon, and that the relation of the belt to the bearer and of the ammunition to the belt shall be such as will be most conveniently adapted to the rapid and positive handling of the ammunition in connection with the magazine system of the weapon with which the belt is intended to be used; also, that the belt shall carry, retain, and release a large amount of ammunition most conveniently adapted to the manual of arms adopted in connection with the weapon with which the ammunition is intended to be used, and that the belt shall be especially adapted to the loading movements of said manual.

It is also my object that the improvements which I have invented in cartridge-belts, the preferred forms of which are hereinafter described and illustrated, may be varied to suit

any of the foregoing requirements without departing from the spirit of the invention.

Some of the more specific objects of my invention are to provide a cartridge-belt having a bullet-proof backing which shall form a heart or body shield; to provide a cartridge-belt which shall be most conveniently and detachably attached to the uniform or garment by a system of ball-and-socket fastenings or snaps; to provide a cartridge-belt which shall receive, retain, and release a cartridge-package or series of cartridge-packages by a yielding tension; to provide certain improvements in retaining means for cartridge-belts and certain improvements in cartridge-pockets; to provide an overlapping series of cartridge-pockets and certain details of improvement pertaining thereto; to provide a cartridge-pocket, a row of cartridge-pockets, and a plurality of rows of cartridge-pockets, any and all of which may be advantageously formed from a single band of material, and certain details of improvement in connection therewith; also, to provide certain improvements in retaining and releasing means for cartridge-pockets which shall firmly retain the cartridge-package in the pocket and assist in receiving and releasing the same; also, to provide certain improvements in the construction of the belt and in the manner of the connection, arrangement, and relation of the pockets to the belt, and certain other details of improvement hereinafter more fully set forth.

For the purpose of illustration I have shown in the accompanying drawings some of the forms in which my invention may be embodied; but such illustrations and the descriptions thereof are not to be taken as defining the limits of my invention, as the inventive idea therein illustrated may appear in various forms and with many modifications without departing in the least from the spirit of my invention.

In said drawings, which are hereby made a part hereof, Figure 1 shows a side elevation of a belt involving my invention, parts being broken away. Fig. 2 is a longitudinal transverse section of Fig. 1. Fig. 3 is a side elevation of a cartridge-pocket, showing the retainer and a cartridge-package in place in the pocket. Fig. 4 is a perspective view show-



ing the flap or web for uniting the pocket and belt. Fig. 5 is a plan view of a blank for forming the web and pocket integrally. Fig. 6 is a perspective detail illustrating the ball-and-socket fasteners for attaching the belt to the uniform. Fig. 7 is a plan view of a blank of elastic webbing from which the pocket and retainer may be integrally formed. Fig. 8 is a perspective view of a portion of a belt, showing one form which the overlapping pockets may assume. Fig. 9 is a plan view of a piece of elastic material from which the belt and a series of pockets with the retainers may be integrally formed; and Fig. 10 is a transverse longitudinal section of a part of a belt, showing the belt and overlapping pockets formed of a continuous strip of material.

In the drawings, in which like letters and figures refer to like parts throughout, A represents the body part of the belt; A', a layer of bullet-proof material united thereto, and B the pockets for receiving the cartridge-package; B', a flap or web for connecting the pocket to the belt; B<sup>2</sup>, the cartridge-retainer for retaining the cartridge-package in the pocket. C denotes a cartridge-package, and D D' the respective members of a ball-and-socket fastening.

The cartridge-belt A may be formed of any suitable material which is possessed of the necessary stiffness and wearing qualities, but is preferably made of leather, cloth, or elastic webbing. Attached to this belt as a backing or otherwise incorporated therewith is a layer of bullet-proof material, by reason of which the belt may be utilized as a shield for vital parts. For example, when the belt is worn over the shoulder and across the breast, as shown in Fig. 6, it has the incidental function of a heart-shield. I may employ any suitable bullet-proof material—such, for example, as bullet-proof felt or sheet metal.

Attached to the belt are a series of cartridge-pockets B to receive, retain, and release the cartridge-packages. The pockets B may be variously arranged upon the belt and may be formed and attached thereto in a number of ways. In Figs. 1, 2, and 10 the belt is shown with a single row of pockets; but I may use a double belt or a single belt having a plurality of rows of pockets to increase the carrying capacity of the belt.

The belt may be worn in any desirable way, but preferably it is worn suspended from the shoulder diagonally across the chest of the wearer and is attached to the uniform or garment by means of a ball-and-socket fastening. This manner of attaching the belt is clearly shown in Fig. 6, in which D' is the socket, shown as attached to the belt, and D is the ball member of the snap. Preferably there are several such snaps or fastenings, the one on the shoulder being under the collar for purposes of concealment when the belt is not worn, and the one lower down may be formed integrally with one of the buttons on the uniform. The ends of the belt may be

fastened together in any desired manner and by any form of fastener, preferably by a ball-and-socket fastening. This manner of wearing the belt firmly attaches it to the bearer and has advantages in the rough military use of the belt; but the chief advantage lies in its relation to the simplicity of the movements involved in taking the ammunition from the pockets of the belt and passing it to the magazine of the weapon, the pockets of the belt being specially constructed to be adapted to these movements, as will be hereinafter more fully set forth.

The pockets B may be formed of any suitable material, and when a single consecutive arrangement of pockets on the belt is used it is obvious that the pockets may be stitched to the belt in such a manner as to allow the belt to form the rear side of the pocket, as shown in Fig. 3. For the purpose of economizing space on the belt, and thus allowing a large number of cartridges to be carried in the most convenient position for rapid manipulation, the pockets may be arranged on the belt so as to overlap each other, as shown in Figs. 1, 2, 8, and 10. For convenience of description I shall refer to that part of the pocket at the bullet end of the cartridge as the "front," the opposite end as the "rear," the open edge as the "top," and its opposite as the "bottom." As shown in Figs. 1, 2, and 10, the pockets overlap in longitudinal series, while in the construction shown in Fig. 8 the pockets overlap in transverse series, as many such series as may be desired being used.

Referring now to Figs. 1, 2, and 4, the pockets B are secured to the body of the belt at their forward ends by any convenient means, here shown as a line of stitches, while along the bottom of the pocket and integral therewith, if desired, extends a flap or web B', likewise secured to the belt. It will be readily understood that this web by folding up bel- lows-like permits the pockets to lie close to the body of the belt when empty and at the same time allows the rear end of the pockets to be thrown out from the belt, as shown in Figs. 2 and 4, thus permitting the forward part of another pocket to be interposed between the belt and the forward pocket. This web B' is preferably made of elastic material, which causes the outside or overlapping pocket to closely hug the under pocket, thus causing the pockets to automatically fold down against the belt when empty and permits the belt to be closely and conveniently packed. It also permits a sufficient movement and adjustment in the relation of the pockets to the belt, whether filled or empty, to allow any necessary movement of the belt in adapting it to the body of the bearer or any necessary movements of the belt in handling it, which in a military belt has a relation to the movements involved in the manual of arms.

The pockets are formed with a special reference to the movements involved in insert-



ing and removing the cartridge-package and are provided with means for retaining the packages by a yielding tension exerted upon the packages or on the topmost cartridge therein. The forward end of the pocket has a height which corresponds to the height of the cartridge when situated in the pocket, while the opposite or rear end of the pocket is about one-half as high as the package. The length of the bottom of the pocket corresponds to the length of the cartridge-package. The forward end of the pocket is formed on an angle, and its top side is somewhat longer than the cartridge in order to afford a sufficient space between the bullet of the upper cartridge and the forward end of the pocket to permit the cartridge-package to be withdrawn by an upward and forward swinging or turning movement.

The pocket is provided with a suitable opening for the receipt and release of the cartridges, which opening may be formed on a diagonal line extending along the entire upper side of the pocket, as shown in Figs. 1 and 3, or but partially along the upper side, as shown in Fig. 8. In other respects the pockets conform to the shape of the cartridge-package to be contained therein.

The cartridge-belt retains the cartridge-packages by a yielding tension, and for convenience of description I have designated the tension device as a "cartridge-retainer." This retainer may be a yielding body located at the mouth of the pocket and arranged to exert a yielding tension upon the package of cartridges when in the pocket and in the act of inserting and withdrawing the same; for the function of the retainer is not only to hold the cartridge-package securely in the pocket under ordinary service conditions, but also to assist the gunner in the act of inserting the package in the pocket and removing it therefrom when going through the loading movements of the manual of arms of the weapon. To these ends the retainer is arranged in such relation to the mouth of the pocket that in the act of inserting or withdrawing a package the retainer is raised and also turned in a vertical plane about a fixed point on the pocket. This results in a turning tension exerted by the retainer upon the package, as well as a direct downward tension. Thus if the package C at the upper right-hand corner of Fig. 8 be pushed slightly farther in the retainer B<sup>2</sup> will act not only to force the package downward, but, by reason of its turning tension, will also give it a positive turning movement. If, on the other hand, the package be pulled out slightly beyond the position shown in Fig. 8, the retainer, because of the same turning tension, will give the package a quick turning movement, thereby ejecting it from the pocket into the hand of the gunner. This turning tension which the retainer exerts at all times upon the cartridge-package and which acts to greatly expedite the handling of the ammunition, es-

pecially when going through the loading movements of the manual of arms, I have termed "torsional" tension. The construction is such that the yielding tension exerted by the retainer upon the package is both direct and torsional and that in the process of inserting or removing the package from the belt the retainer exerts both a direct and turning pressure on the package, thereby causing the package to assume always a certain fixed position in the pocket and to facilitate the insertion and removal of the same. This retainer constitutes an important part of my invention, as by its use I am enabled to rapidly and conveniently manipulate the ammunition, the receiving, retaining, and releasing action of the belt being specially adapted to the magazine system and to the loading part of the manual of arms of the weapon with which the belt is intended to be used.

The retainer may assume various forms without departing from the spirit of the invention. It may constitute a separate yielding body attached to the pocket or may be formed integrally with the pocket, in either case extending across the open side of the pocket to afford a yielding tension on the cartridge-package.

Referring now to Fig. 3, B<sup>2</sup> is the retainer, here shown as an elastic band attached to the bottom of the pocket and extending in a forwardly-slanting direction up the front side of the pocket, across the top of the same, and down on its rear side. The retainer engages with the sides of the pocket to secure it in fixed relation therewith, for which purpose slots b<sup>2</sup> are formed in the walls of the pocket and the retainer passed through these slots, thus giving a fixed relation and position of the cartridge-retainer in its relation to the pocket and to the cartridge-package contained therein.

In withdrawing the cartridge-package C, Fig. 3, from the pocket B the package is grasped by the hand and given an upward and forward swinging or turning movement, the space between the bullet of the upper cartridge and the forward end of the pocket permitting this movement. In thus swinging the cartridge-package upward and forward the retainer B<sup>2</sup> is not only moved up, but is also turned or bent forwardly. The same is true of the retainer when a cartridge-package is inserted into the pocket. It will thus be seen that the fixed relation between the cartridge-retainer and the cartridge-pocket and the upward and forward turning movement of the cartridge-package in inserting or removing the same from the pocket causes both a direct and torsional or turning tension of the retainer on the cartridge-package. The tension exerted upon the cartridge-package when at rest is largely direct, the torsional tension being at a minimum, but in the act of withdrawing or inserting the package the torsional tension is augmented, reaching its maximum just as



the package enters or escapes from the pocket. This action of the retainer draws the cartridges back and down into the lower corner of the pocket when inserting the same and firmly holds them there by a direct and torsional but yielding tension.

As before remarked, the retainer may be formed integrally with the body of the pocket. Pockets having the retainer thus formed are shown in Fig. 8. In the upper row of pockets (indicated by the numeral 1) the retainer is formed of threads of elastic material which pass around the opening in the pocket and diagonally across it in such manner as to exert the direct and torsional tension hereinbefore described. The second row of pockets (indicated by the numeral 2) is formed of an elastic web, and the third row 3 is shown as formed of any suitable yielding and elastic material, as sheet-rubber. The overlapping manner in which the pockets are stitched together compels the elastic quality of the belt to maintain a convenient and uniform relation of the pockets without the necessity of the elastic web B' of Figs. 2 and 4. If now the package of cartridges C (shown in the left-hand pocket of row 1) were grasped and given an upward and forward swinging and turning movement, the action of the retainer would be identical with that shown in Fig. 3, and the tendency of the tension thereby exerted upon the cartridge-package would be to force the same backward and downward. It will be apparent that the action will be not only to force the package directly downward into the pocket, but to give a turning movement which will act to accurately locate the package in its proper position in the pocket.

In Fig. 4 I have shown a construction in which the elastic body constituting the retainer consists of a wire B<sup>3</sup>, which is attached to the pocket by being stitched between the folds of the same on its under side, and has a worm-coil b<sup>3</sup> near the upper forward corner of the pocket. The engaging end of the retainer is curved to permit it to pass over the topmost cartridge of the package in a manner similar to the elastic band and by a yielding tension to hold the package down in the lower corner of the pocket, but permit the package to be withdrawn from the pocket by an upward and forward rotating movement. This retainer B<sup>3</sup> is so formed that when at rest its engaging end turns down against the rear side of the pocket, thus affording both a direct and torsional tension to retain the cartridges in the pocket. This form of retainer may be applied to any open-mouthed pocket; but I have shown it as applied to a pocket having its anterior side and bottom partially removed to adapt it to a cartridge-package whose clip or holder is not provided with a handle.

The pockets, which form a part of my invention, may be made in a variety of ways. When they are arranged consecutively and do not overlap each other, the form may be

essentially that illustrated in Fig. 3; but when the overlapping style of pocket is preferred the pocket may be conveniently and integrally formed from a single piece of material substantially similar to that illustrated in Fig. 5, which when folded and stitched with the flap or web B' uniting it to the belt, as shown in Fig. 4, permits the overlapping relation of the pockets, as hereinbefore described.

In Fig. 7 I have shown a single piece of elastic webbing from which pockets, such as are seen in Fig. 8, may be formed with the retainer integral therewith. The web is so combined with the elastic material as to give the latter a tension across the pocket, whereby I secure the direct and torsional tension hereinbefore described. This result may be accomplished by weaving the threads of elastic material into the web, so that they will lie parallel with the sides of the opening, as will be readily understood from an inspection of Figs. 7 and 8.

If desired, the pockets and belt may all be integrally formed of a single strip of material, and when such a series of pockets is desired a strip of fabric having the necessary openings therein is provided. In this strip threads of elastic material may be combined with the fabric, so as to assume the proper position with relation to the openings in the pocket when formed. This strip of fabric is then folded and stitched in the manner necessary to complete the formation of the pocket. Such a strip of material is shown in Fig. 9.

A cartridge-belt comprising one or more rows of pockets may be formed from a single band of material by successively folding and stitching the band of material to form the pockets, and when an overlapping series of pockets is desired the band of material is folded and stitched to form the first pocket, then carried forward about one-half the length of the pocket and folded and stitched to form the second pocket, and so on. The pockets thus formed may be suitably stitched together and the flap or web B' hereinbefore mentioned may be dispensed with. One form of this construction is illustrated in Fig. 10.

When it is desired to form a plurality of rows of pockets from a single band of material containing the necessary rows of openings to form the mouths of the pockets, the material is folded longitudinally to produce overlapping transverse rows of pockets, and is folded both longitudinally and transversely when it is desired to have the pockets overlap in both directions.

The operation is as follows: The cartridge-belt, as hereinbefore described, is designed to be adapted to a certain manual of loading movement in handling the ammunition and in passing it from the belt to the weapon. The operation is such that a single upward and rotating movement of the cartridge-package suffices to withdraw the same from the car-



tridge-pocket and pass it into the magazine of the weapon. The relation of the cartridge-package to the pocket is as follows: When it is desired to fill the several pockets of the belt with cartridge-packages containing in fixed relation a certain number of cartridges, the point of the topmost cartridge in the package is slipped under the engaging end of the cartridge-retainer. Then by lifting the clip up a little and slightly turning it until the lower end of the package passes into the lower end of the pocket the direct and torsional tension of the cartridge-retainer pulls the package down into the lower corner of the pocket and firmly holds it there.

The removal of the clip from the pocket is effected in the following manner: The cartridge-package is grasped by the hand and lifted up and at the same time turned slightly forward, thus carrying the lower end of the cartridge-package up out of the pocket and permitting it to be withdrawn by a single upward and turning movement of the hand.

I am familiar with United States Patents Nos. 401,923 and 487,556, and do not herein claim as of my invention the constructions shown in either of said patents.

Having described my invention, what I claim is—

1. A cartridge-belt having a backing or lining of bullet-proof material, substantially as described.

2. An open cartridge-belt detachably attached to the garment of the wearer solely by a ball-and-socket fastening, substantially as described.

3. A cartridge-belt, a garment, and a connecting medium between the belt and garment consisting of a ball-and-socket fastening, one member of the fastening being on the belt and the other on the garment, substantially as described.

4. A cartridge-belt having a series of overlapping pockets, one end of each pocket being attached to the belt and the other end to the preceding pocket, substantially as described.

5. An integral blank strip formed into a cartridge-belt having a plurality of overlapping rows of cartridge-pockets, substantially as described.

6. A cartridge-belt having a series of overlapping pockets, the belt and pockets being formed of an integral folded strip-blank, substantially as described.

7. A cartridge-pocket having an elastic web attaching it to a cartridge-belt, whereby a series of overlapping pockets may be attached to the belt, substantially as described.

8. A cartridge-pocket which has a flap or web which forms the bottom of the pocket and connects it with the belt, substantially as described.

9. A cartridge-belt having a series of overlapping pockets each pocket being directly attached to the belt at one end of the pocket,

and also by a web extending along the bottom of the pocket, substantially as described.

10. A cartridge-belt having a series of overlapping pockets, each pocket being provided with an opening in its top, slanting upward and forward to facilitate the turning movement of the package when inserting or removing the same, as set forth.

11. A cartridge-belt having a series of pockets provided with diagonally-slanting openings in their tops, the belt and pockets being formed of a single integral strip-blank, substantially as described.

12. In a cartridge-belt, a pocket for a package of cartridges in combination with retaining means exerting a torsional tension upon the package when receiving the same into, or releasing it from the pocket, as set forth.

13. The combination in a cartridge-belt of pockets for packages of cartridges with retaining means exerting a torsional tension on the package when receiving or releasing the same, and a direct tension when in the pocket, substantially as described.

14. A cartridge-pocket to receive, retain and release a cartridge-package holding a series of cartridges in fixed relation, said pocket engaging the package by a yielding torsional tension, substantially as described.

15. In a pocket for a package of cartridges, means exerting a torsional tension on the package when receiving or releasing the same, substantially as described.

16. In a pocket for a package of cartridges held in fixed relation, a cartridge-retainer located at the mouth of the pocket and exerting a yielding torsional tension upon the package when receiving, retaining or releasing the same, substantially as described.

17. A pocket for a package of cartridges, said pocket having an elastic torsional cartridge-retainer, substantially as described.

18. A pocket for a package of cartridges, said pocket having a cartridge-retainer, and the pocket and retainer being formed of an integral piece of elastic material, substantially as described.

19. A cartridge-receiving pocket in combination with a cartridge-retainer consisting of an elastic wire held in contact with the cartridge by a worm-coil, substantially as described.

20. A cartridge-receiving pocket in combination with a cartridge-retainer engaging the cartridge with direct and torsional tension, substantially as described.

21. In a cartridge-belt, the combination of the belt, a pocket attached thereto and elastic means folding the pocket down against the belt, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

S. N. McCLEAN.

Witnesses:

REEVE LEWIS,  
S. T. CAMERON.