

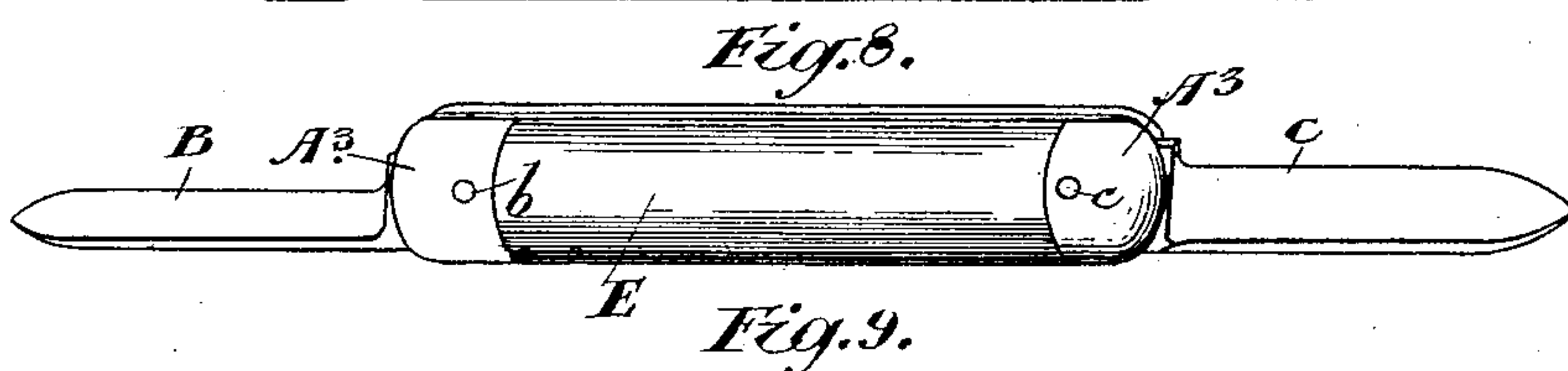
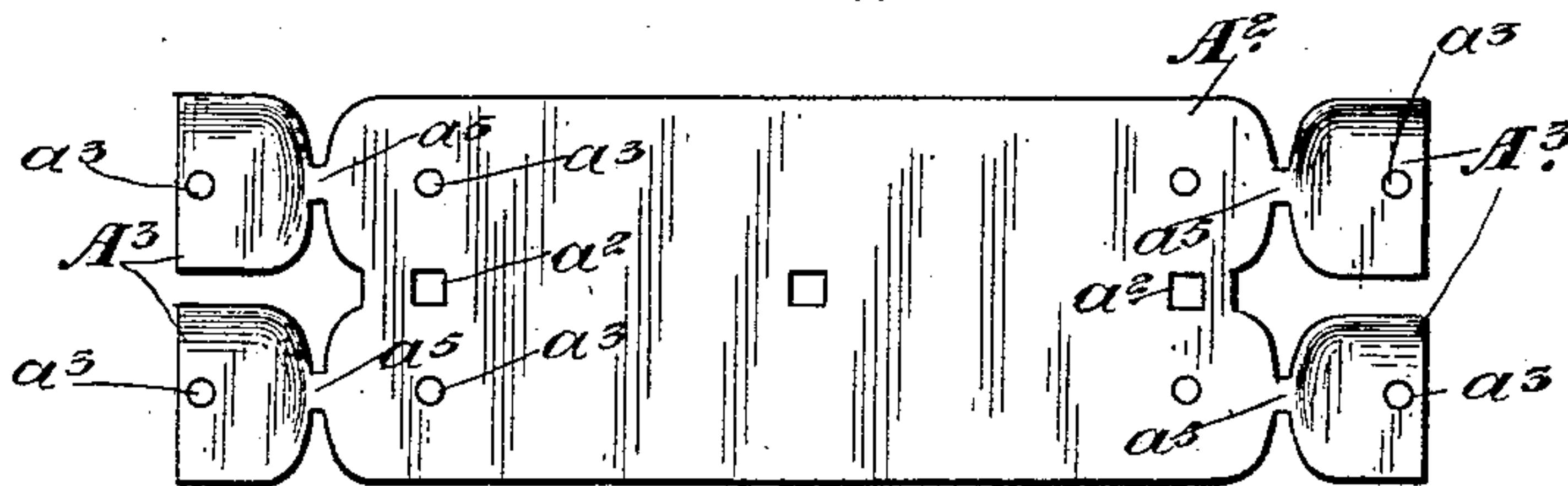
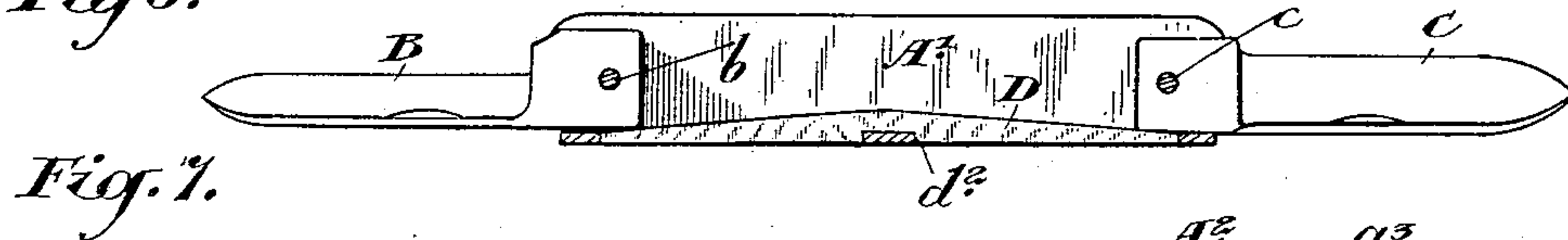
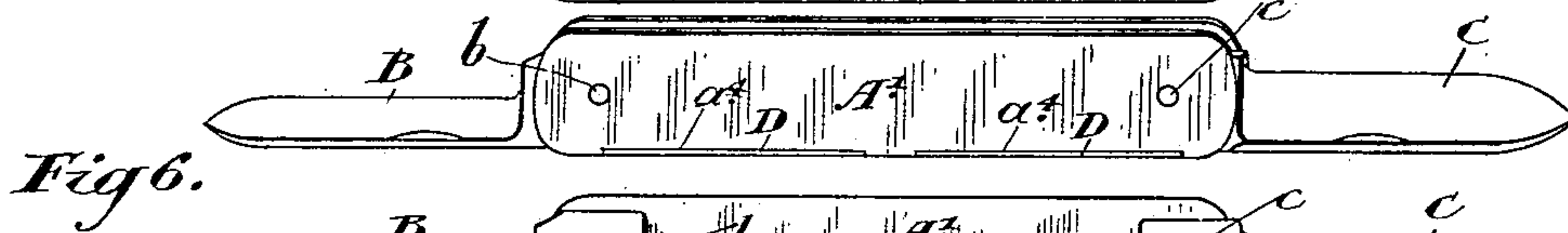
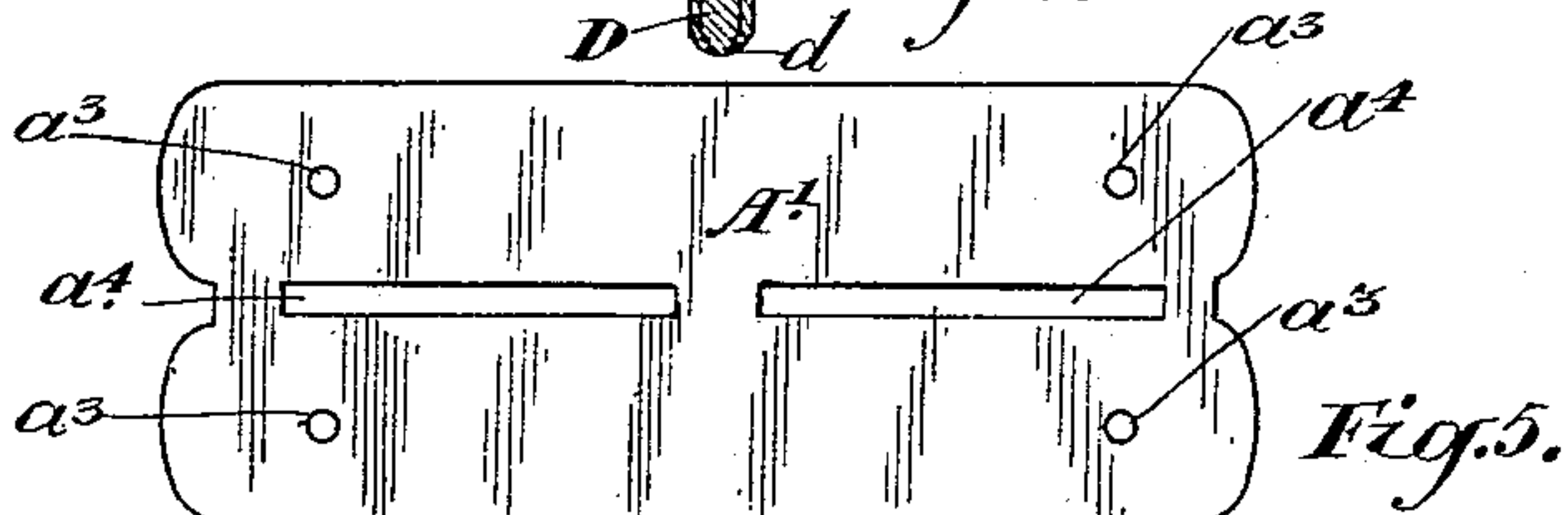
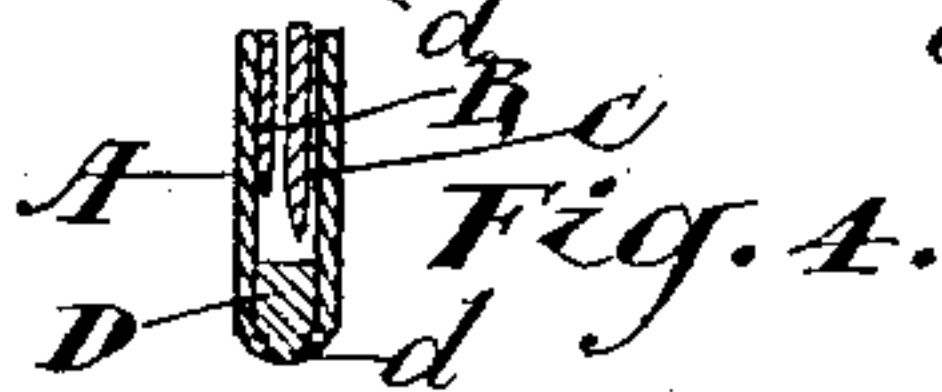
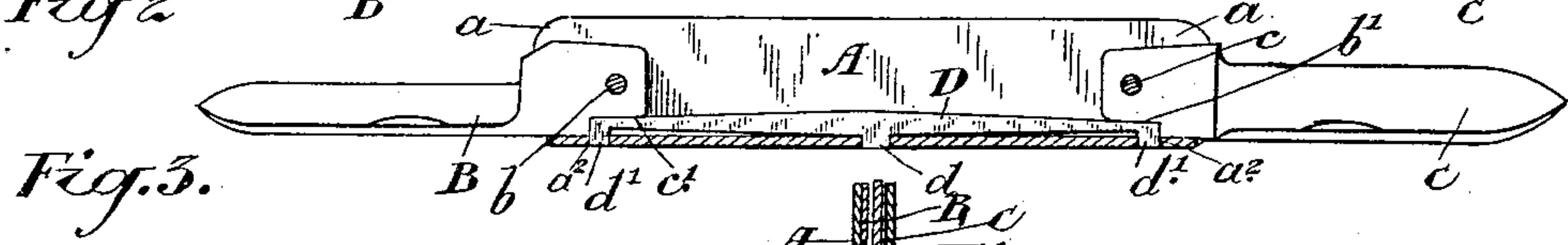
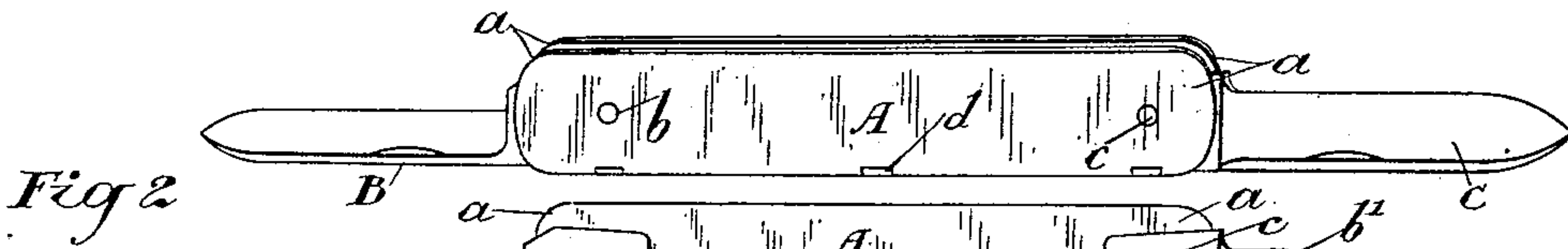
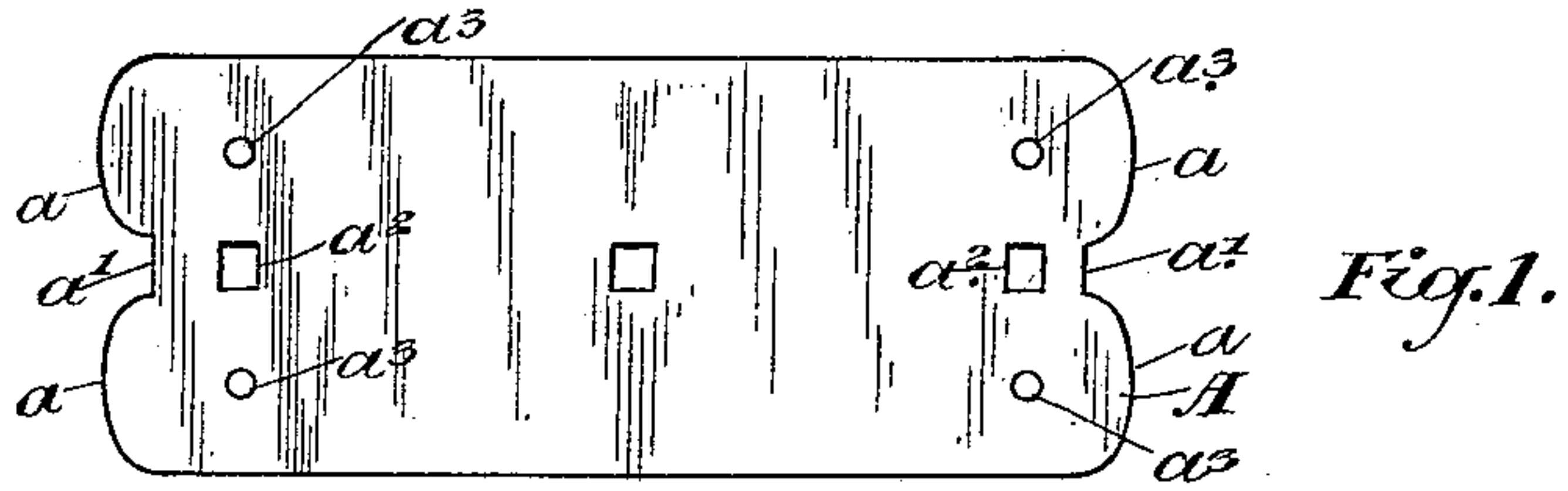
No. 702,967.

Patented June 24, 1902.

**I. KINNEY.
KNIFE.**

(Application filed Sept. 30, 1901.)

(No Model.)



Witnesses

H. T. S. Gearing.
L. C. Reynolds **Fig 11**

Fig. 10.

Inventor:

J. Kinney

By *J. Hetherington & Co. attys.*

UNITED STATES PATENT OFFICE.

ISRAEL KINNEY, OF TORONTO, CANADA.

KNIFE.

SPECIFICATION forming part of Letters Patent No. 702,967, dated June 24, 1902.

Application filed September 30, 1901. Serial No. 77,072. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL KINNEY, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Knives, of which the following is a specification.

My invention relates to improvements in knives; and the object of the invention is to devise a simple, cheaply-made, strong, and durable handle and a spring for the interior of the handle which will hold the blades in the open or closed position rigidly and securely; and it consists, essentially, of forming up the handle proper, comprising the sides and back, out of one sheet of metal, with the back portion centrally disposed and provided with means for retaining the spring in position, the said spring and the parts being otherwise constructed and arranged in detail, as hereinafter more particularly explained.

Figure 1 is a plan view of a blank formed up previous to being bent to form the handle. Fig. 2 is a detail of a knife, showing the handle formed complete and in accordance with my invention. Fig. 3 is a longitudinal section, the spring, however, not being in section. Fig. 4 is a cross-section of Fig. 2. Fig. 5 is a detail of a blank formed in an alternative manner to that shown in Fig. 1. Fig. 6 is a view of a knife complete formed up out of a blank as shown in Fig. 5. Fig. 7 is a longitudinal section through a knife with the handle formed of a blank as shown in Fig. 5, the spring being not shown in section. Fig. 8 is a plan view of a blank with bolsters formed on it previous to their being turned up to form the end caps of a knife. Fig. 9 is a detail of the knife, showing a handle constructed in accordance with the blank formed as shown in Fig. 8. Fig. 10 is a longitudinal section through Fig. 9, the spring, however, not being shown in section. Fig. 11 is a longitudinal section showing an alternative way of making the handle and spring formed out of the same blank.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the blank out of which the handle and back of the knife is formed. The blank A is formed with rounded ends a , recessed central portions a' between the rounded ends a ,

the holes a^2 preferably rectangular and longitudinally in alinement in the center of the blank, and the rivet-holes a^3 to each side of the end holes a^2 . It will be noticed that the blank A is formed or struck up in one piece of sheet metal.

B and C are the blades, which are hinged upon the rivets b and c , extending through the holes a^3 in the sides of the handle formed of the blank A.

D is a spring having, preferably, an enlarged center and tapering toward the ends, as indicated. The spring D is provided, preferably, with an outwardly-extending rectangular projection d at the center and an outwardly-extending projection d' , which extends through the holes a^2 in the back of the knife. It will be noticed that the spring at the end extends slightly away from the back and into the notches b' and c' near the inner ends of the blade.

By the construction I have described it will be seen that there are no rivets necessary to keep the spring in position, it being securely held at its ends between the inner ends of the blades and the back. The handle formed of one piece is very cheap to make, is very strong and durable, and the probability of the sides coming apart through side strain on the blades or otherwise, so as to destroy the rivets and pull out the sides from them, is entirely overcome. The formation of the back in this manner lends strength and rigidity to the blade and relieves all strain on the rivets.

In Figs. 5, 6, and 7 I show an alternative form in which the spring is formed with a central rectangular notch d^2 and is flat at the back, the major portion of the spring extending through the slot a^4 in the blank A'. In this instance it will be noticed that the ends of the spring are tapered, so as to extend along the back of the ends of the blades, which, it will be seen, it is unnecessary to notch.

In Fig. 8 the blank A² is formed with end caps or bolsters A³, connected to the curved ends by small necks a^5 . The caps A³ are formed up concaved, so that when they are turned back upon the sides they fit over the ornamental handle E, (shown in Fig. 9,) which is preferably reduced in thickness, so that the caps are flush with the contour of

the ornamental portion. It will be seen that the ornamental portion of the handle and all the parts of the knife are practically held together by two rivets extending through the ends of the sides, the ends of the ornamental portion, and the end caps or bolsters, thus avoiding a number of rivets.

In Fig. 10 I show a spring corresponding substantially to the form shown in Fig. 7, except that the ends are thicker and fit into a notch in the end of the blades.

In Fig. 11 it will be seen that the spring D' is formed integral with the blank, being suitably struck up with the same and the free ends being at the outer ends, as shown. It will thus be seen that the full material of the blank between the sides is practically utilized in the formation of the combined sides, back, and spring. In this form, as well as in the other forms referred to in detail, it will be understood that instead of providing ordinary rivets and rivet-holes, through which they extend, the blades may be held in position by suitable teats being compressed inwardly into the holes in the blades.

What I claim as my invention is—

1. In a knife, in combination the sides and back stamped, formed or bent up from a single piece of metal, the longitudinal center of

which forms the back and the portions to each side the sides, such longitudinal center being provided with a central slot or slots whereby end bridges are left connecting the sides, blades held within the sides and rivets extending through such blades and a spring fitting and suitably held within the slot and having the ends abutting the backs of the ends of the blades in proximity to and longitudinally within the end bridges, as specified.

2. In a knife, in combination the sides and back stamped, formed or bent up from a single piece of metal, the longitudinal center of which forms the back and the portions to each side the sides, such longitudinal center being provided with central slots leaving a central bridge and end bridges, blades held within the sides and rivets extending through such blades and sides and a spring held in position within the slots by the central bridge and having the ends abutting the backs of the ends of the blades in proximity to and longitudinally within the end bridges as specified.

ISRAEL KINNEY.

Witnesses:

B. BOYD,

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