

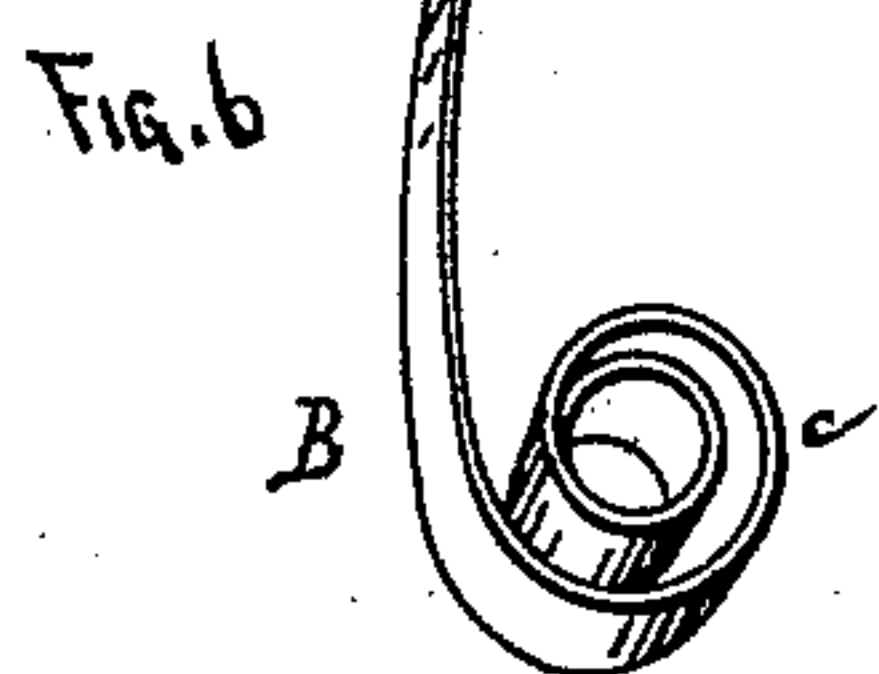
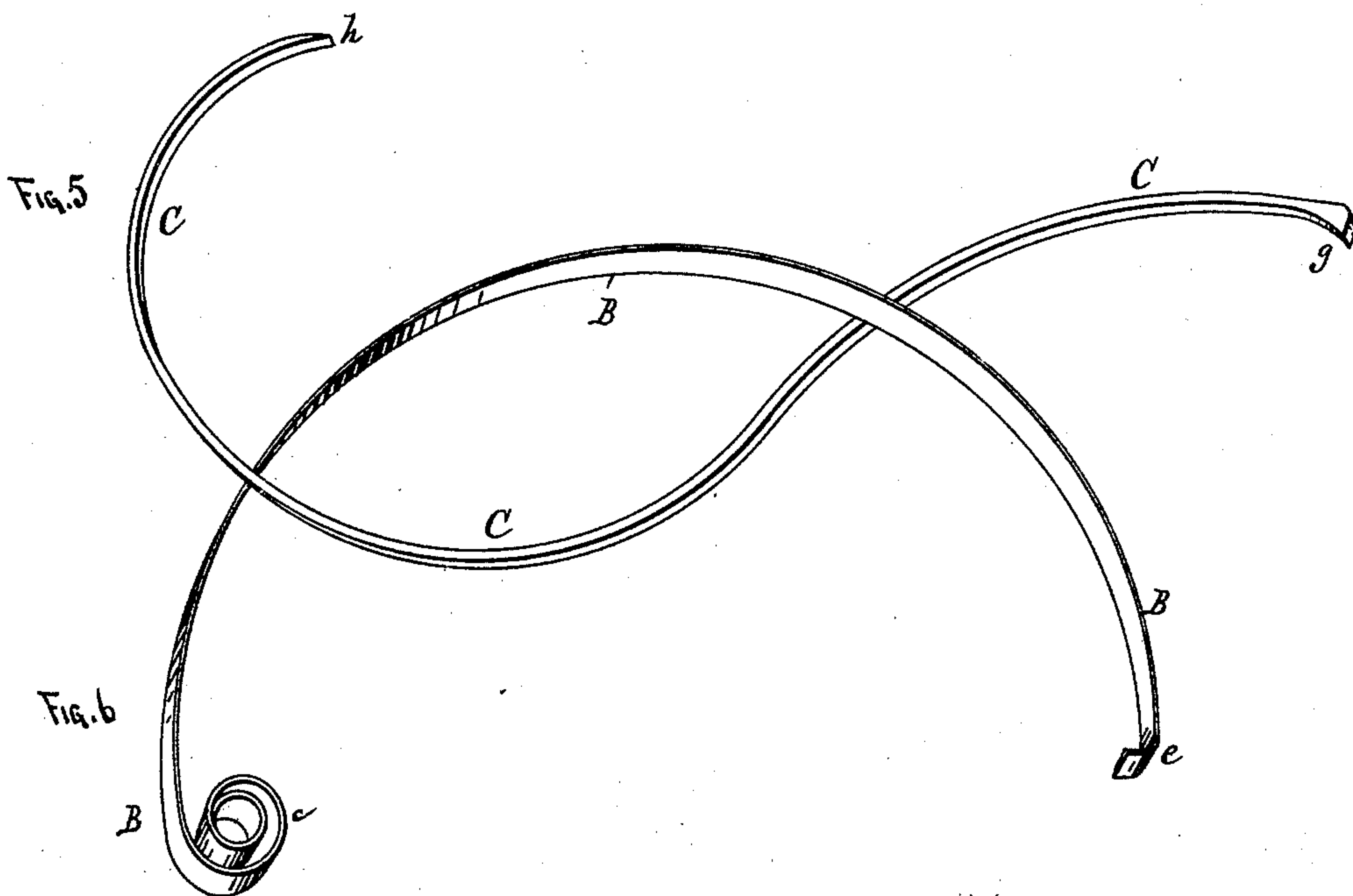
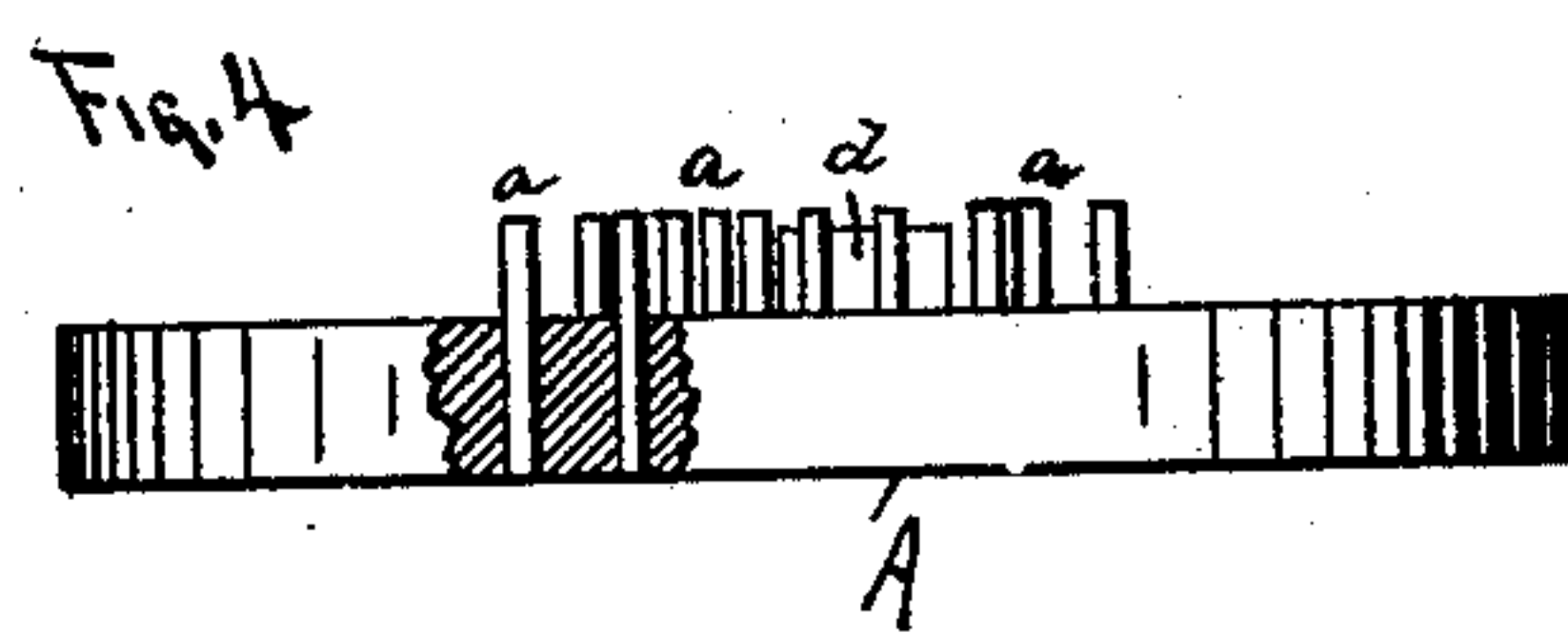
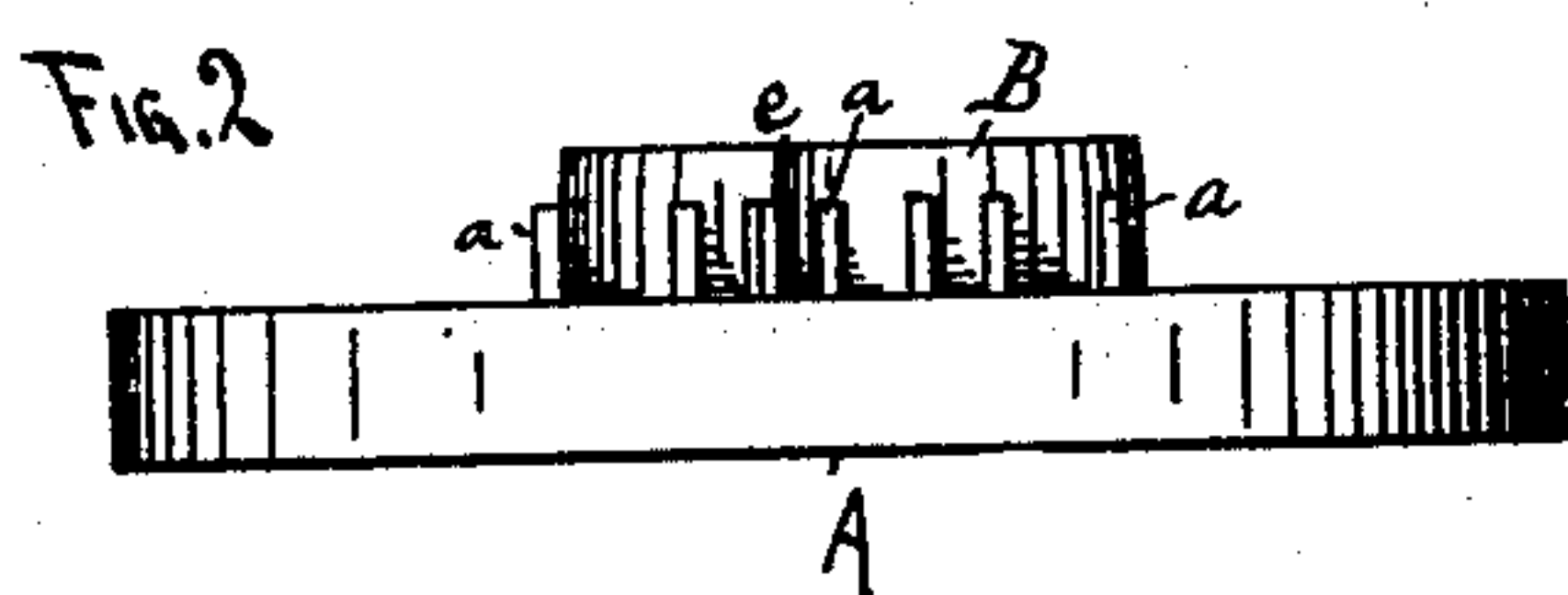
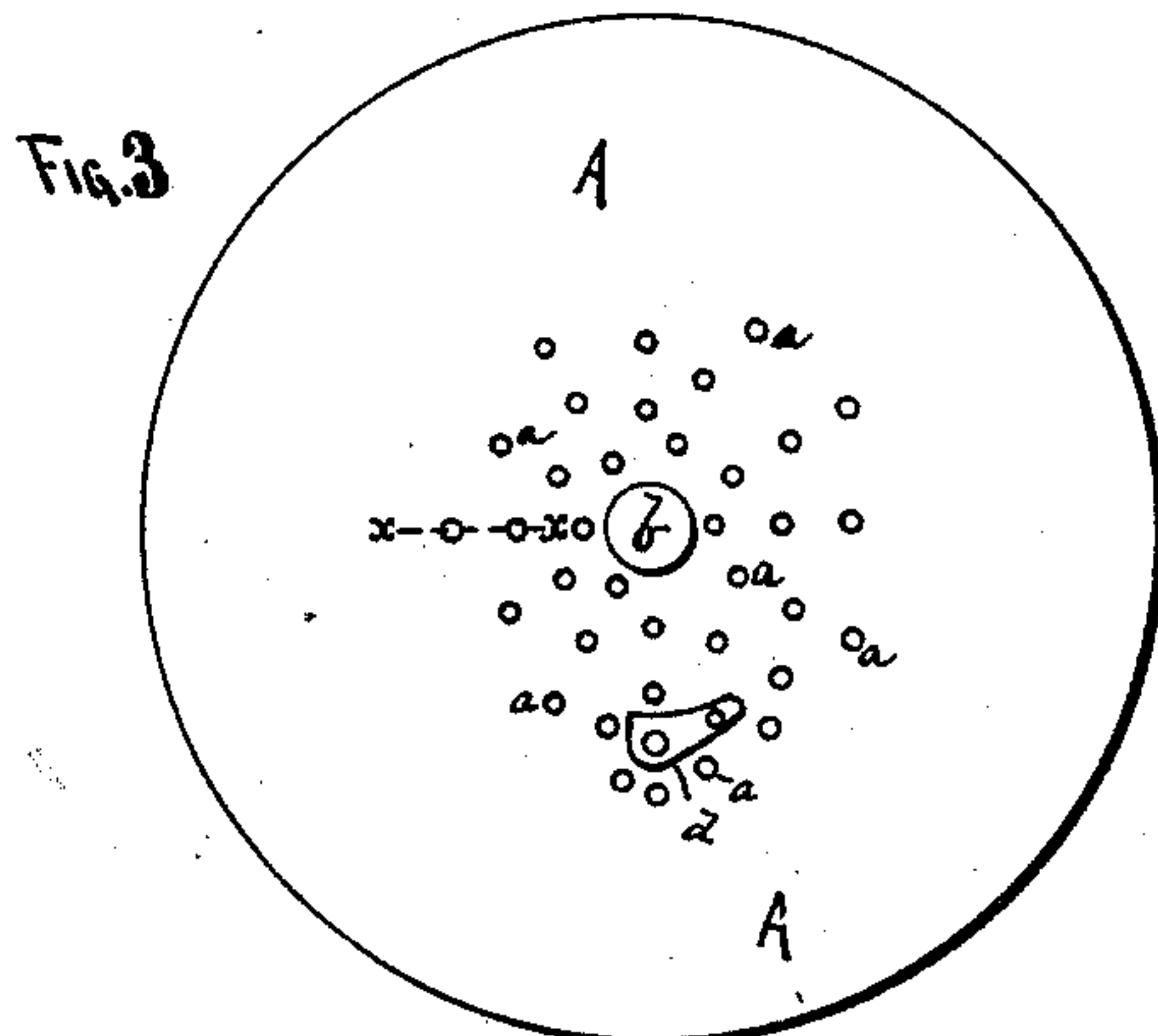
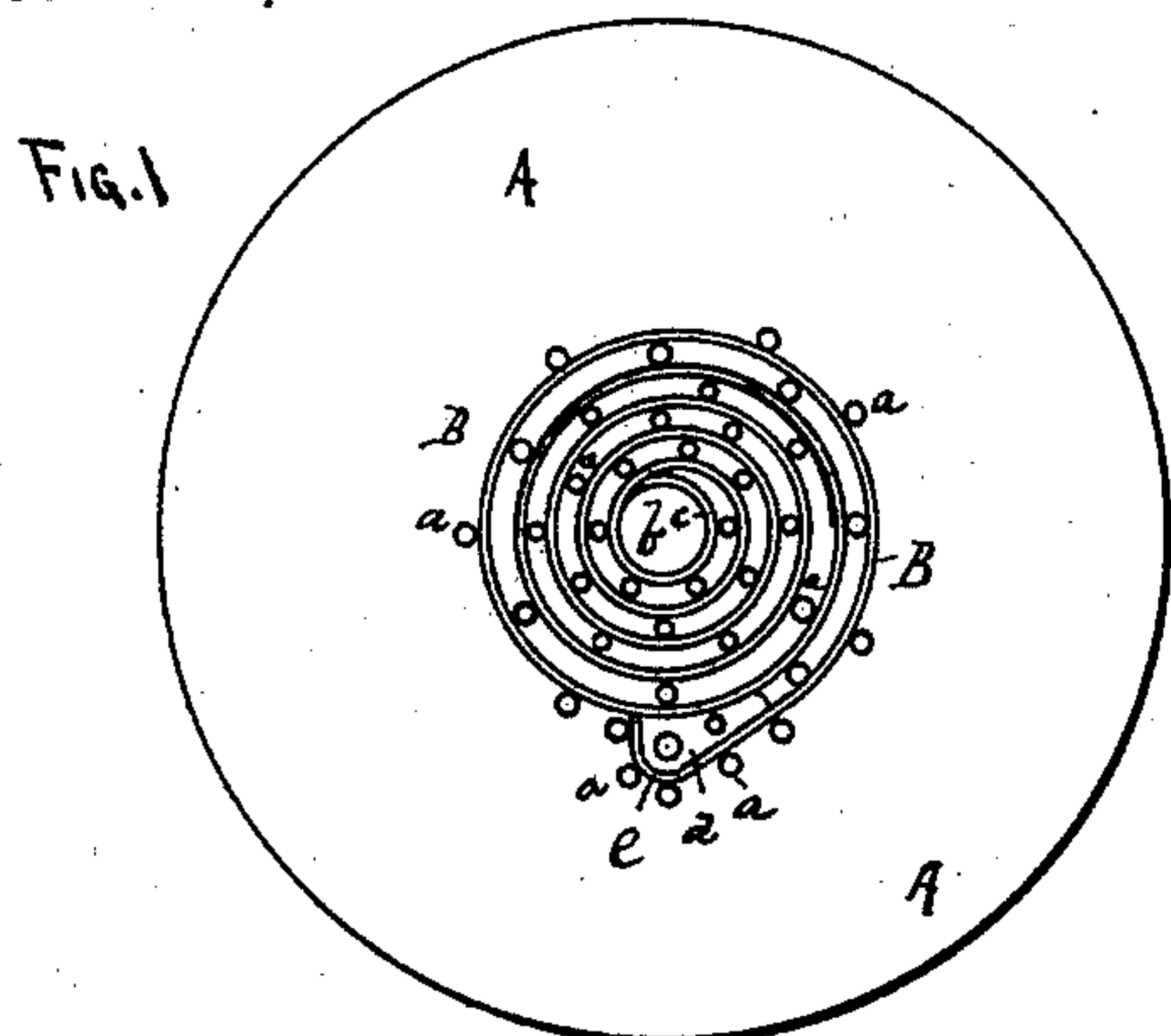
(No Model.)

R. BROWNSON.

INSTRUMENT FOR CUTTING FLY NET STRINGS.

No. 299,952.

Patented June 10, 1884.



WITNESSES,  
Hermow W. Phillips  
Louis Fesser Jr.

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INVENTOR, BY  
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Attys.



# UNITED STATES PATENT OFFICE.

RALPH BROWNSON, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF TO  
PETER R. L. HARDENBERGH, OF SAME PLACE.

## INSTRUMENT FOR CUTTING FLY-NET STRINGS.

SPECIFICATION forming part of Letters Patent No. 299,952, dated June 10, 1884.

Application filed November 13, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, RALPH BROWNSON, a citizen of the United States, and a resident of St. Paul, in the county of Ramsey, in the State of Minnesota, have invented certain new and useful Improvements in Instruments for Cutting the Strings of Fly-Nets, &c., of which the following specification is a full, clear, and exact description, reference being also had to the accompanying drawings, in which—

Figure 1 is a plan view, and Fig. 2 is a side view, of the instrument complete. Fig. 3 is a plan view, and Fig. 4 is a side view, of the base-plate and knife-holding pins and studs, with the knife removed, a portion of Fig. 4 being cut away to show a section of the base-plate on the line *xx* of Fig. 3. Fig. 5 is a perspective view of one of the strings after being cut and removed from the instrument. Fig. 6 is a perspective view of the spiral knife removed from the base and drawn out for convenience of sharpening.

This instrument consists in a base-block, A, in which a series of spirally-arranged holes are bored and adapted to receive a corresponding series of pins, *a*, whereby a spiral cutting-knife, B, is supported upon the base. A fixed center pin or stud, *b*, may be used to support the center or inner end, *c*, of the knife, while a fixed stud, *d*, may be similarly used to support the outer end, *e*, as shown. The pins *a* are removable and will be made to fit the holes in the base tightly, so that when driven into the base they will not become loosened. The knife B is formed of spring-steel with one edge sharpened and one end *c* bent around to fit over the center stud, *b*, as shown in Fig. 6. When the knife is to be set upon the base A, the pins *a* are all removed and the end *c* set over the center stud, *b*, and the pins *a*, immediately surrounding the center stud, driven into their respective holes in the base A outside the inner coil of the knife. The spring-knife is then coiled around these pins and new pins driven into the base as fast as the holes appear outside the knife, and so on, until the knife is all coiled up, as shown in Fig. 1, when the pins will firmly hold it in place. The outer end, *e*, of the knife may be secured, as shown, around a stud, *d*; but this is not

necessary, the only advantages gained by this arrangement being that the outer end of the knife is somewhat stiffened and rendered less liable to breakage, and also enabling an enlarged end, *g*, to be formed upon the string C when it is cut, as shown in Fig. 5. The form of the inner end *c* of the knife is such that the inner end *h* of string C is pointed, as shown in Fig. 5, the pointed end enabling the string to be easily inserted into the holes in the straps of the net, while the enlarged ends *g* prevents the strings from being drawn through the same holes.

In using this instrument a piece of leather of any shape, but large enough to entirely cover the knife when coiled up and secured to the base A, as shown in Fig. 1, is laid upon the knife, and a block of wood, hard rubber, or other suitable material laid upon the leather and struck by a hammer or other suitable implement, when a coiled string will be cut out of the leather the exact shape of the space between the coils of the knife, which, when drawn out, will be in the form of a string, as in Fig. 5. By varying the width of the spaces between the coils of the knife, or the length of the knife, any size or length of string may be made. If the pins *a* do not press tightly enough against the knife B to hold it firmly, they may be bent near their upper end slightly, and then driven into place in the base, with the bent end toward the knife, which will then hold it firmly. The pins *a* may be screwed or otherwise secured into the base, if preferred. By this simple arrangement the knife is firmly and securely held upon the base A, while at the same time it is easily and quickly removable for sharpening, or to replace a broken or worn-out knife. Leather shoe-strings may also be cut by this same form of instrument. By causing the end *c* to gradually approach the last coil of the knife when set upon the base A, instead of encircling the stud *d*, both ends of the string may be formed pointed as at *h* in Fig. 5. If desired, the strings may be formed tapering their entire lengths by arranging the pin-holes in the base, so that the space between the coils of the knife will gradually increase in width from the center outward.

Having described my invention and set forth its merits, what I claim is—

1. The base A, having spirally - arranged holes, pins *a*, adapted to be inserted into said  
5 holes, and a spiral knife, B, supported by said pins, substantially as described.

2. The combination of a base, A, having spirally-arranged holes, pins *a*, fixed stud *b*, and knife B, substantially as and for the pur-  
10 pose set forth.

3. The combination of a base, A, having

spirally-arranged holes, pins *a*, fixed center stud *b*, and fixed outer stud *d*, whereby one end of the string is formed with an enlarged end, *g*, substantially as and for the purpose 15 specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RALPH BROWNSON.

Witnesses:

C. N. WOODWARD,  
LOUIS FEESER, Sr.