

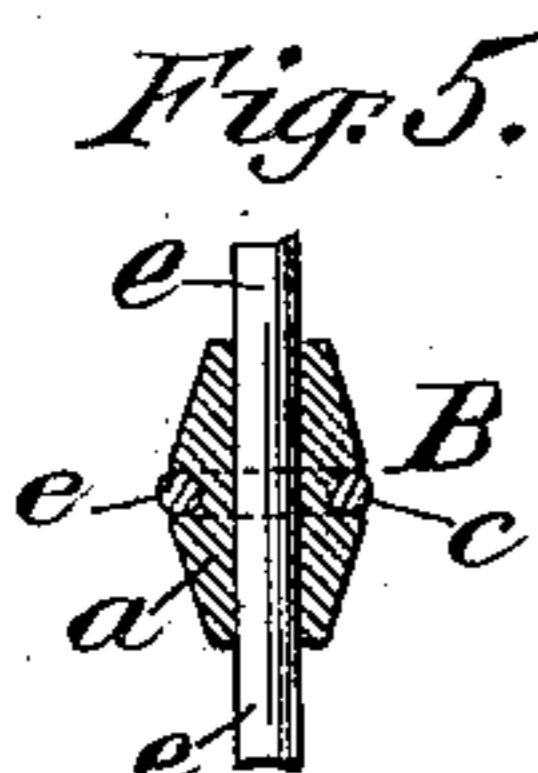
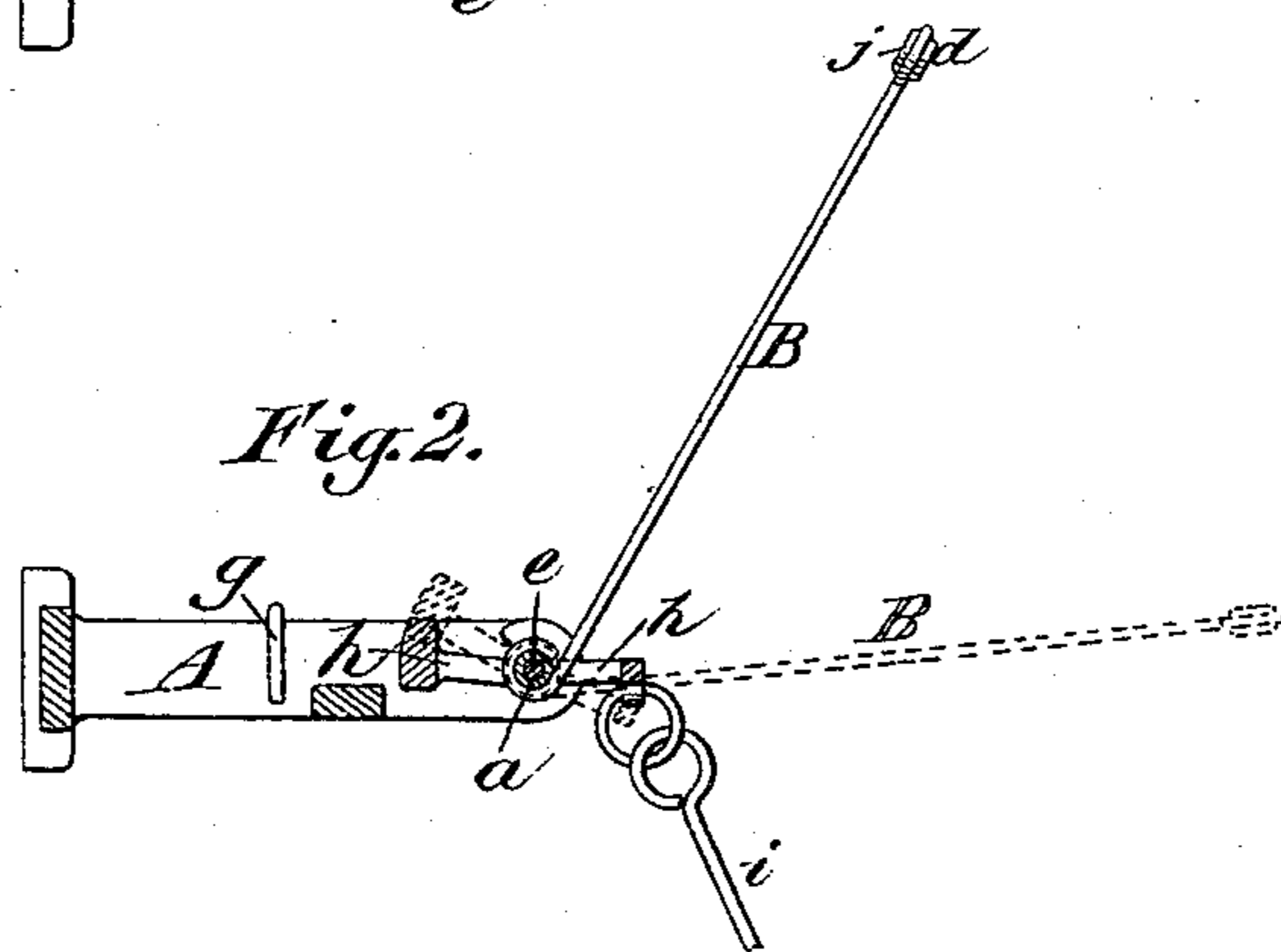
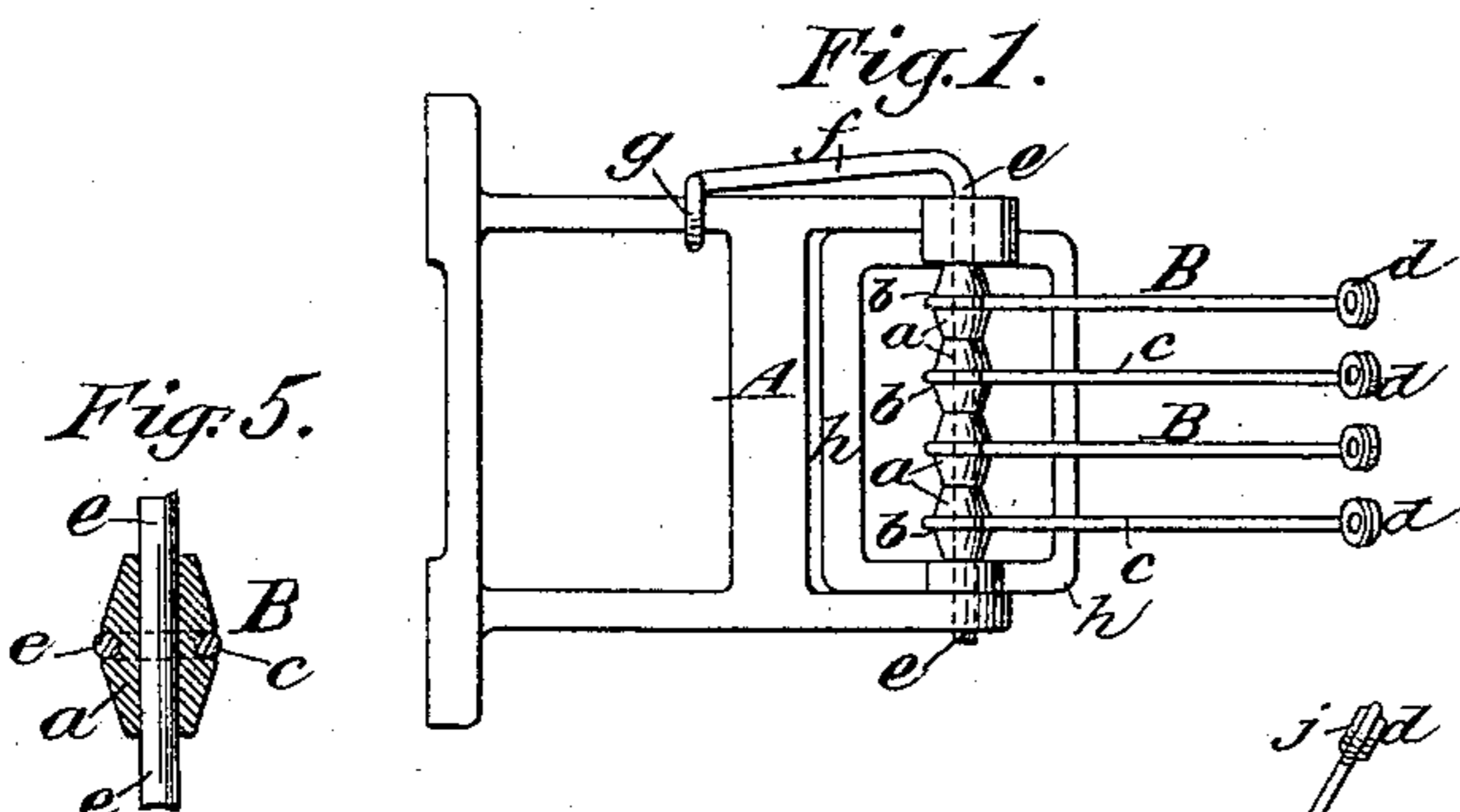
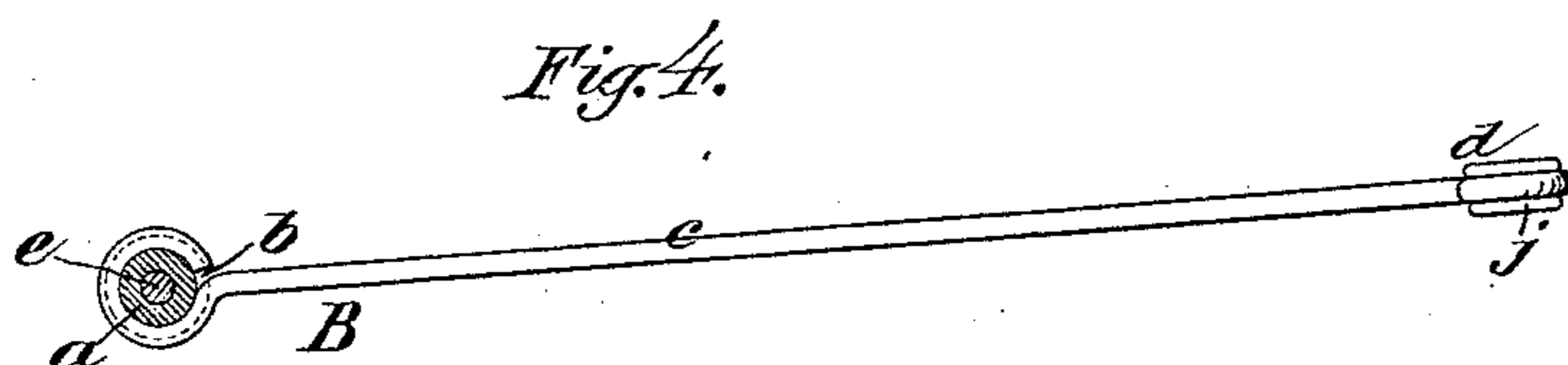
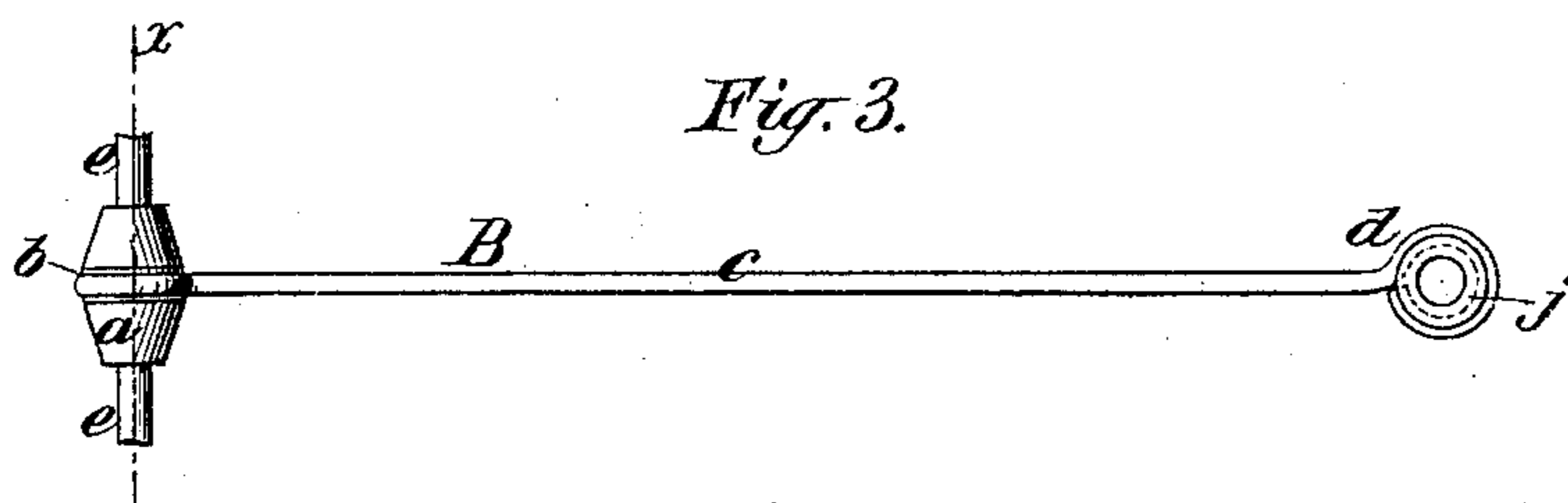
(No Model.)

V. ROYLE.

FALLER FOR THE STOP MOTIONS OF WINDING AND SPINNING MACHINES.

No. 452,066.

Patented May 12, 1891.



Witnesses:
Joseph A. Roe.
O. Sundgren

Inventor:
Vernon Royle
by attorney
John S. Brown

UNITED STATES PATENT OFFICE.

VERNON ROYLE, OF PATERSON, NEW JERSEY.

FALLER FOR THE STOP-MOTIONS OF WINDING AND SPINNING MACHINES.

SPECIFICATION forming part of Letters Patent No. 452,066, dated May 12, 1891.

Application filed August 7, 1888. Serial No. 282,179. (No model.)

To all whom it may concern:

Be it known that I, VERNON ROYLE, of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful
5 Improvement in Fallers for the Stop-Motions of Winding and Spinning Machines, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to that class of fallers
10 in which a wire arm having a thread-guide at one end is attached to a hub axially bored to fit loosely upon a pivot or pin.

I will proceed to describe the improvement, and afterward point out its novelty in claims.

15 In the drawings, Figure 1 represents a plan view of a faller-frame and fallers embodying my invention; Fig. 2, a vertical sectional view corresponding to Fig. 1; Fig. 3, a plan view, on a larger scale, of my improved faller; Fig. 4, a
20 side view, part section, corresponding to Fig. 3; Fig. 5, a transverse vertical sectional view on line *x x* of Fig. 3.

Like letters of reference indicate corresponding parts in all the figures.

25 A designates a frame in which are mounted four fallers B. One such frame may be employed for each spindle in a machine for doubling silk.

Each faller B consists of an axially-bored
30 hub *a*, preferably of metal, having in or around its circumference an annular groove *b*, and of a wire arm *c*, having a thread-guide *d* at one end, and bent at the other end nearly or quite around the hub, tightly encircling the said
35 hub within its circumferential groove, the said arm being thereby firmly and rigidly secured to the hub without the aid of solder or other fastening device.

40 The axially-bored hubs *a* fit loosely upon a pivot or pin *e*, to which they are journaled, and which is supported by the frame A. The hubs have a considerable length, which gives them a long bearing upon the pin *e*. The length of the said bearing prevents sidewise move-

ment or looseness of the projecting end of arm
45 *c*. As here represented, the pin or pivot *e* consists of a wire, which has its end portion *f* bent laterally and forked, as at *g*, to engage one side portion of the frame A, and thereby hold the
50 pin *e* in place. Upon the same pin *e* is journaled or pivoted a balanced frame *h*, the back portion of which is made of greater weight, so that it normally maintains the position shown in Fig. 2. *i* is a wire provided for connecting the balanced frame *h* by suitable
55 mechanism with the flier of a spindle. When a thread breaks, the faller, through the thread-guide of which it is placed, drops downward upon the frame *h* to the position shown in dotted lines in Fig. 2, and by its
60 weight tilts the balanced frame *h* downward and, acting through the wire *i* and intermediate mechanism, stops the flier of the spindle.

Thread-guide *d* may have any suitable
65 form as a loop through which the thread passes, and the loop may be protected by a ring or thimble *j*, preferably of porcelain.

By making the wire of the arm to fit tightly in the circumferential groove between the side faces of said groove and by making it
70 tightly embrace the hub around the bottom of the groove, no other fastening of the arm to the hub is necessary to firmly secure it thereto.

What I claim as new, and desire to secure
75 by Letters Patent, is—

A faller consisting of a circumferentially-grooved and axially-bored metal hub and a wire arm bent at one end to tightly encircle
80 the said hub within its circumferential groove and so secure itself thereto and having a thread-guide at the other end, substantially as specified.

VERNON ROYLE.

Witnesses:

FREDK. HAYNES,
JOSEPH W. ROE.