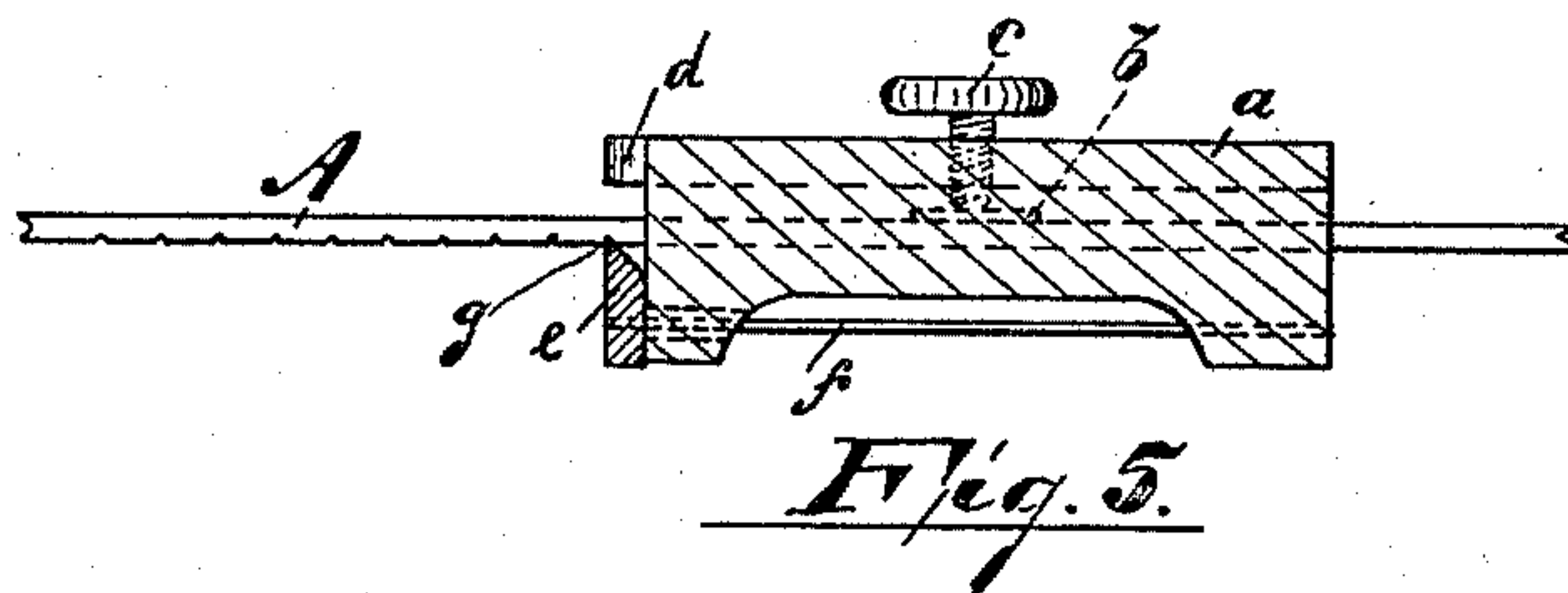
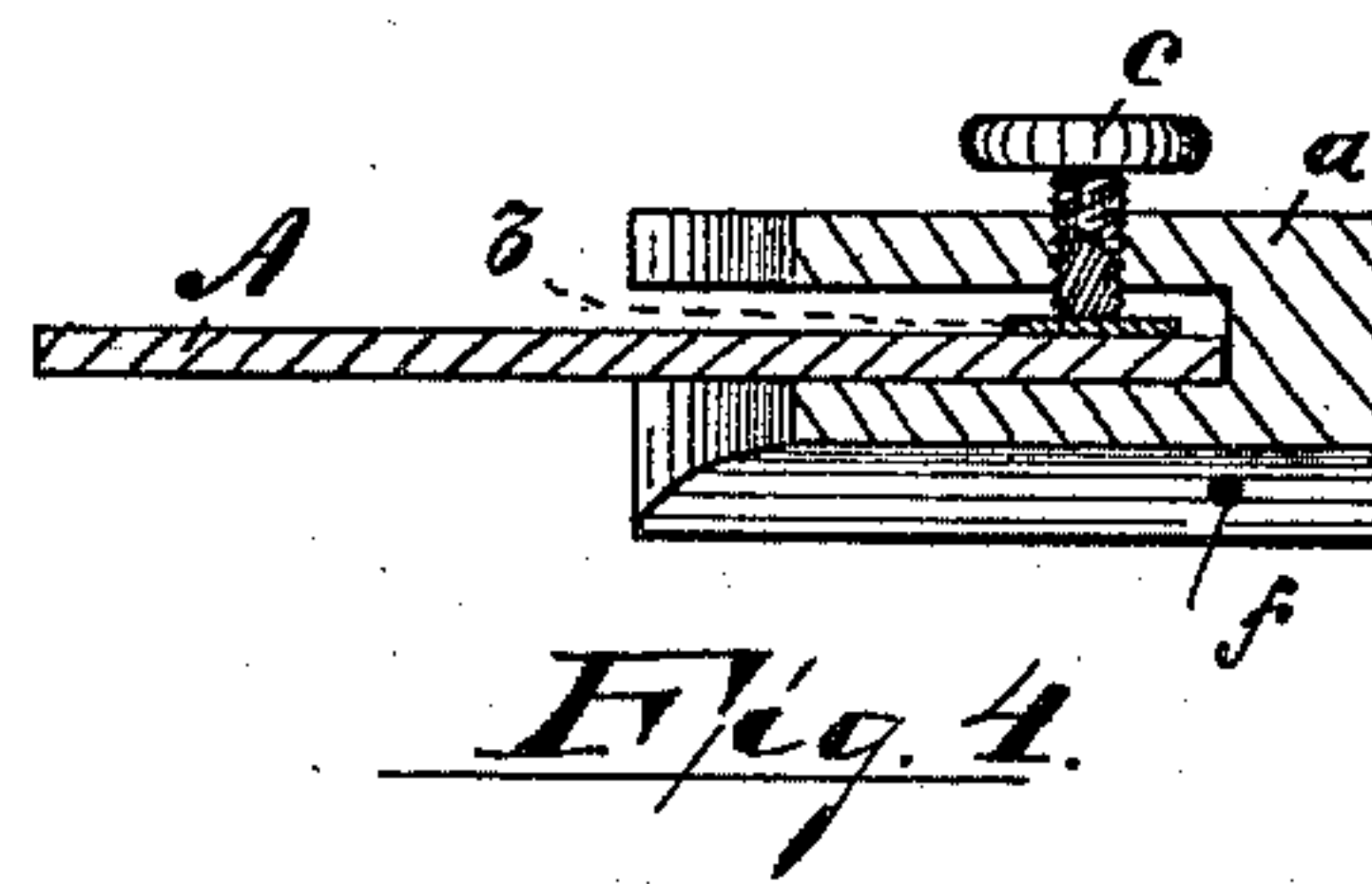
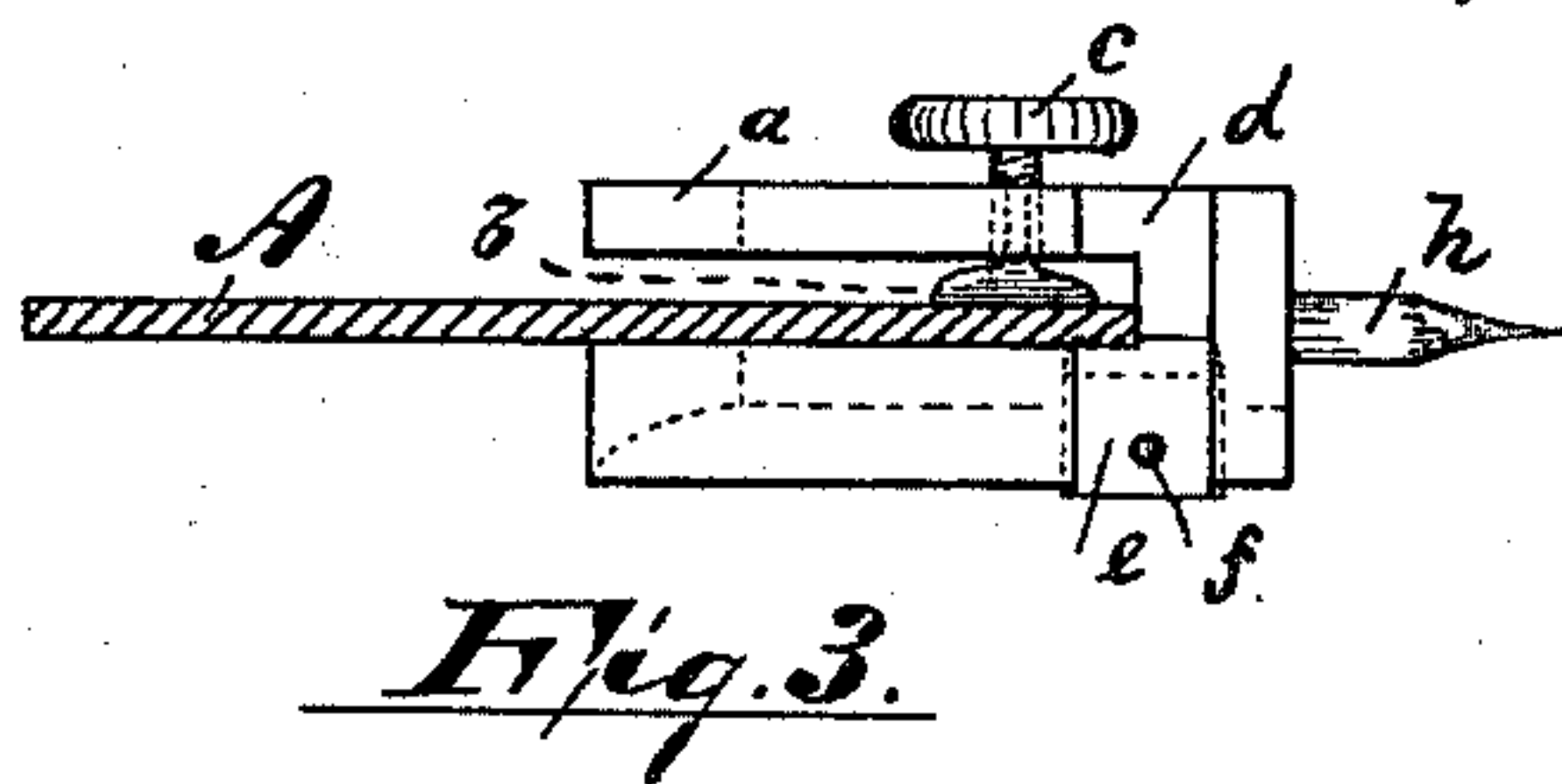
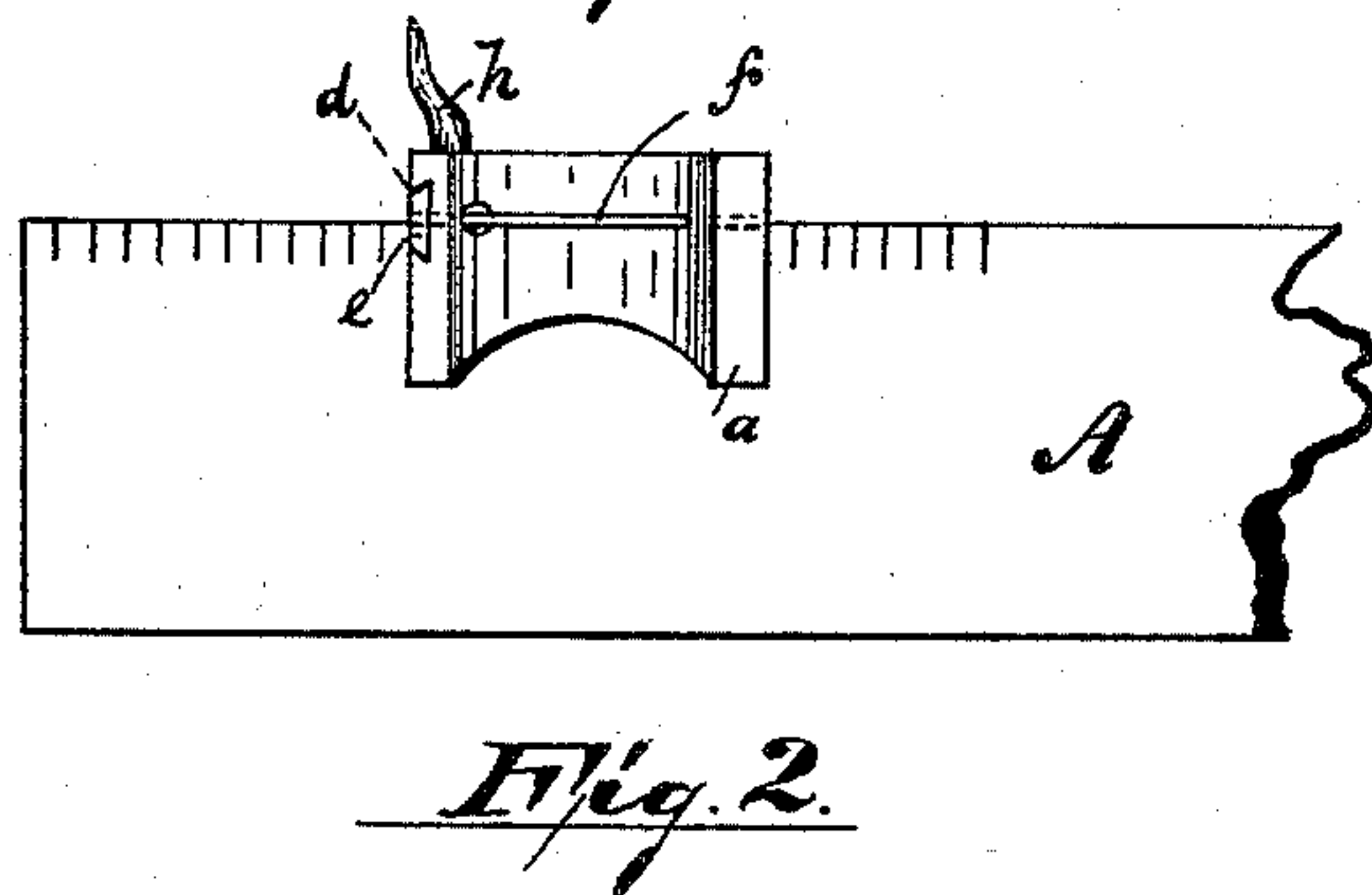
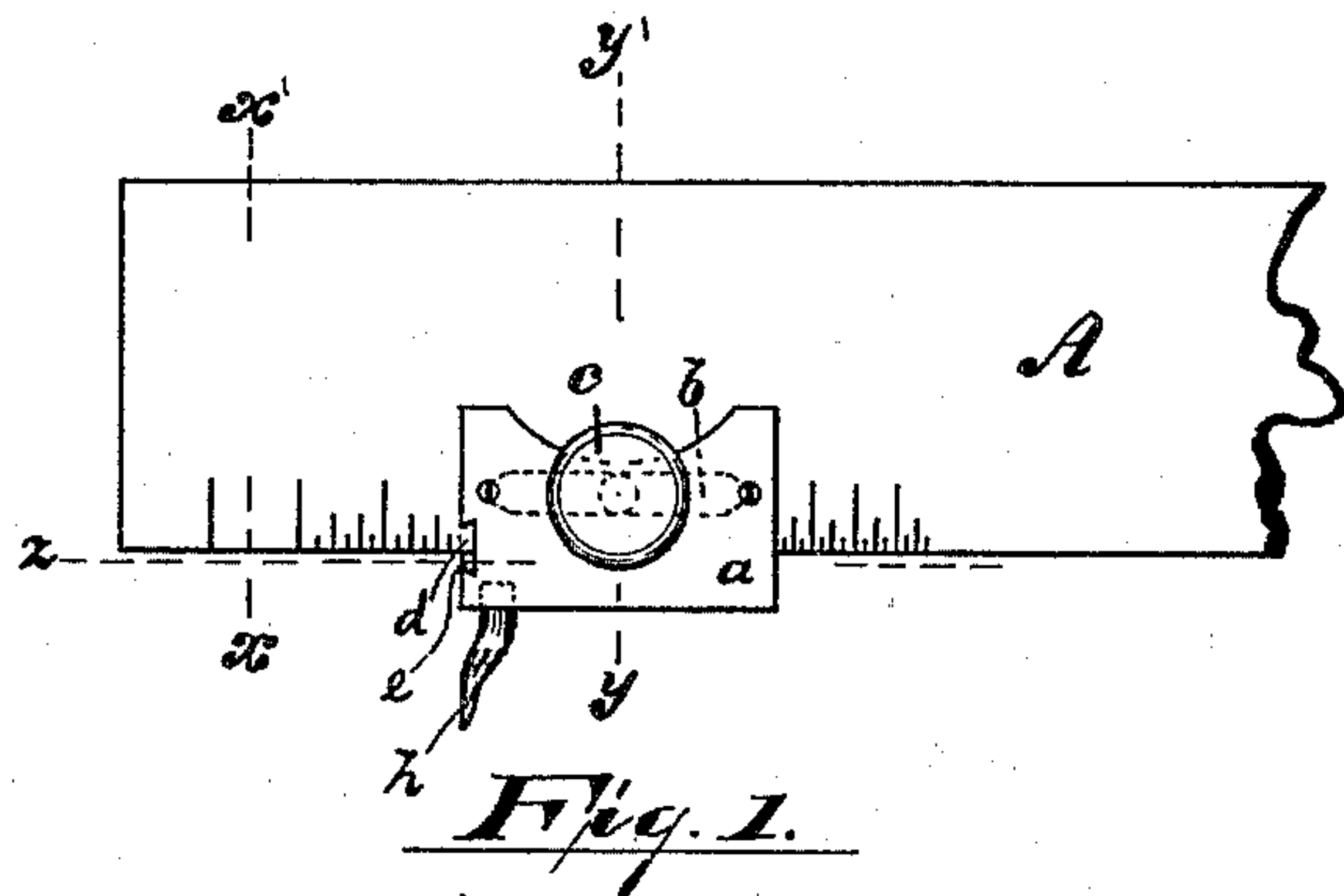


(No Model.)

M. A. DAHL.
ATTACHMENT FOR GRADUATED RULES.

No. 457,077.

Patented Aug. 4, 1891.



WITNESSES:
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ATTACHMENT FOR GRADUATED RULES.

SPECIFICATION forming part of Letters Patent No. 457,077, dated August 4, 1891.

Application filed October 2, 1890. Serial No. 366,839. (No model.)

To all whom it may concern:

Be it known that I, MENS A. DAHL, a subject of the King of Norway, residing at West Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Attachments for Graduated Rules; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to simplify measurements as taken by a graduated rule and enable the workman to keep continually the same exactness of measure.

The invention consists in the improved attachment for graduated rules and the combination and arrangement of parts thereof, substantially as hereinafter described, and finally embodied in the claims.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a plan view of my improved device attached to a graduated rule. Fig. 2 is an under side view of Fig. 1. Fig. 3 is an enlarged section on $x x'$, Fig. 1. Fig. 4 is an enlarged section on line $y y'$, Fig. 1; and Fig. 5 is an enlarged section on line z , Fig. 1.

In said drawings, A represents the graduated rule, on which is arranged my improved independent adjustable gage attachment. This attachment consists of an elongated grooved block a , adapted to slide on one side of the graduated rule A. The under side of the block is recessed, as shown in Fig. 2, to allow the adjustment and arrangement of a spring-rod f . On the under side of the upper portion of the block a is secured in any desired manner a flat spring b , adapted to rest on the surface of the rule A. In the top portion of the block A is a threaded opening, in which works a threaded adjusting-screw c , the lower end of said screw resting on the spring b , so that by turning down the screw the attachment will be finally held on the rule, as will be manifest. In one end of the block a' is a dovetail slot d , in which is adjusted a sliding block e . This block e is se-

cured to one end of the spring-rod f , and is formed on one side with a sharp knife edge or point g . (Shown in Fig. 5.) This knife-edge rests in one of the graduating-marks on the rule A, and is held there by the action of the spring f . In the front of the block a is a sharp-pointed marking pin or projection h , with a flat side and so arranged that this flat side shall be on a line exact with the end of the block. The pointed marking-pin can also be used for marking the gage distance on other objects.

In operation the screw c is loosened, thereby releasing the spring b . The block a is then moved to the exact distance required between the side of the block and the end of the rule. The sharp edge of the block e will then enter the gage-mark on the rule and be held in place by the spring f . The screw c will then be turned down and bind the block a firmly to the rule A. In this manner the workman will always have a uniform gage and one that is not shifting, and it will not be necessary to examine it every time it is used to see that it is exact. When two of the attachments are used, they will be adjusted "right and left," and in this manner can be used as a beam-compass.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gage attachment, the combination, with a graduated rule, of an independent adjustable gage-block provided with a sharp edge adapted to engage in the notches of said graduated rule, and means for securing said gage-block to the graduated rule, substantially as described and set forth.

2. In a gage attachment, an independent adjustable gage-block combining therein a block adapted to be adjusted on a graduated rule and provided at one end with a slot, a block working in said slot and provided with a sharp edge adapted to engage in the notches of said graduated rule, a spring arranged to hold said sharp edge in said notches, and means for securing said gage-block to a graduated rule, all said parts being arranged and adapted to operate substantially as described and set forth.

3. In a gage attachment, an independent adjustable gage-block combining therein a

block adapted to be adjusted on a graduated
rule and provided at one end with a slot, a
block working in said slot and provided with
a sharp edge adapted to engage in the notches
5 of said graduated rule, a spring arranged to
hold said sharp edge in said notches, a mark-
ing-pin secured to said gage-block, and means
for securing said gage-block to a graduated
rule, all said parts being arranged and adapt-

ed to operate substantially as described and is
set forth.

In testimony that I claim the foregoing I
have hereunto set my hand this 27th day of
September, 1890.

MENS A. DAHL.

Witnesses:

ALFRED GARTNER,
ALBERT A. SCHMIDT.