

(No Model.)

J. H. HILLER.
SNOW GUARD.

2 Sheets—Sheet 1.

No. 502,490.

Patented Aug. 1, 1893.

Fig 1.

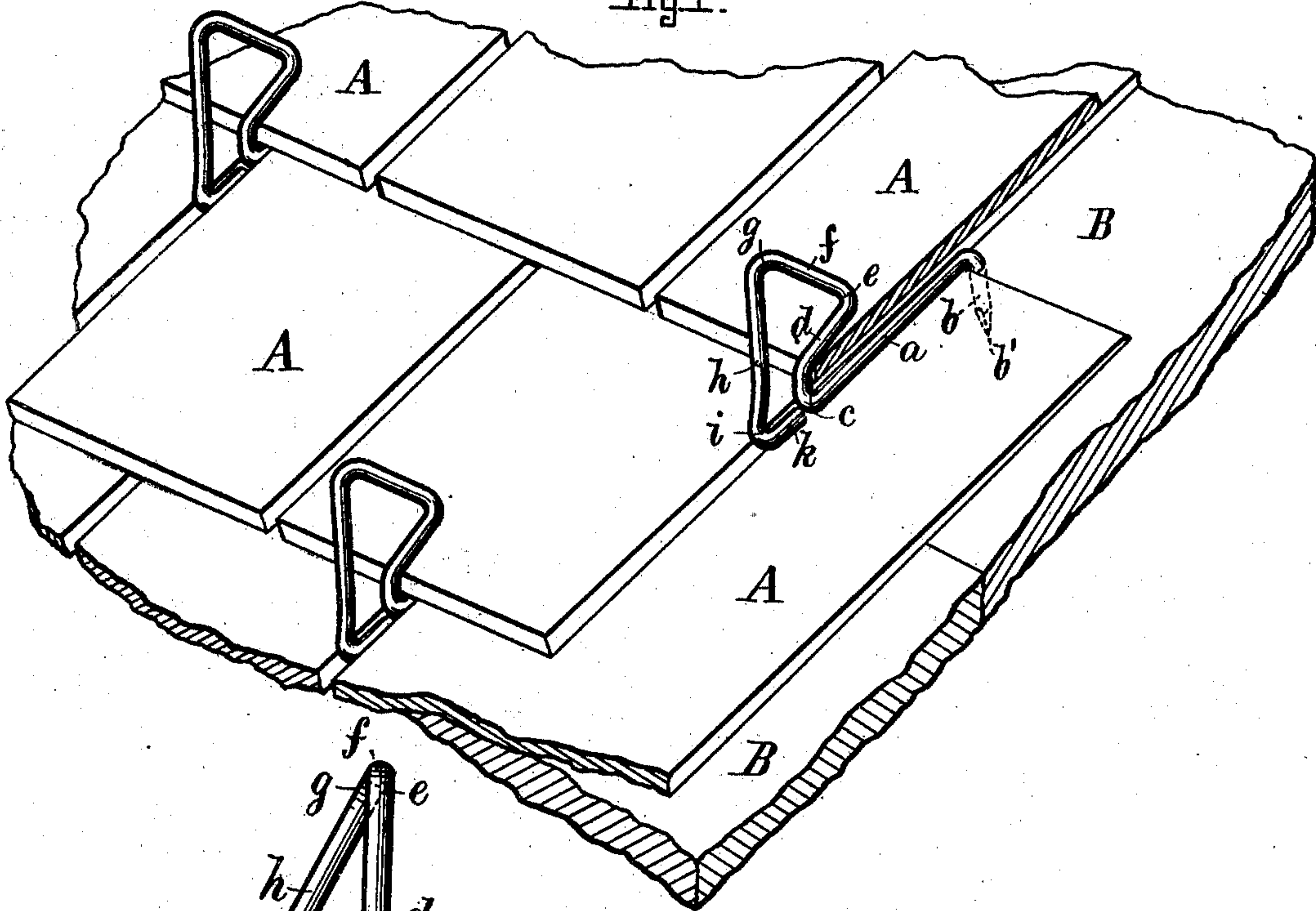


Fig 2.

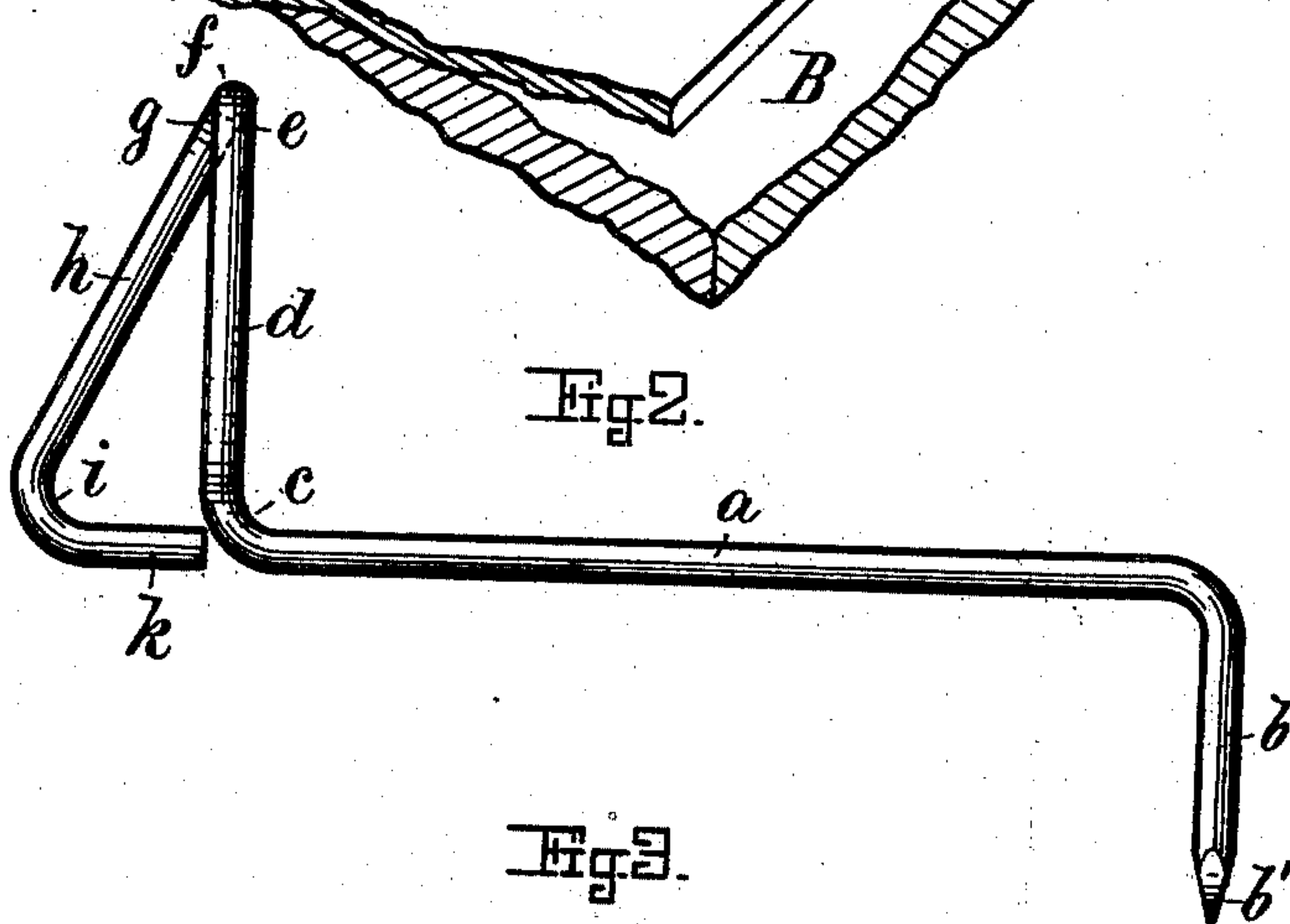
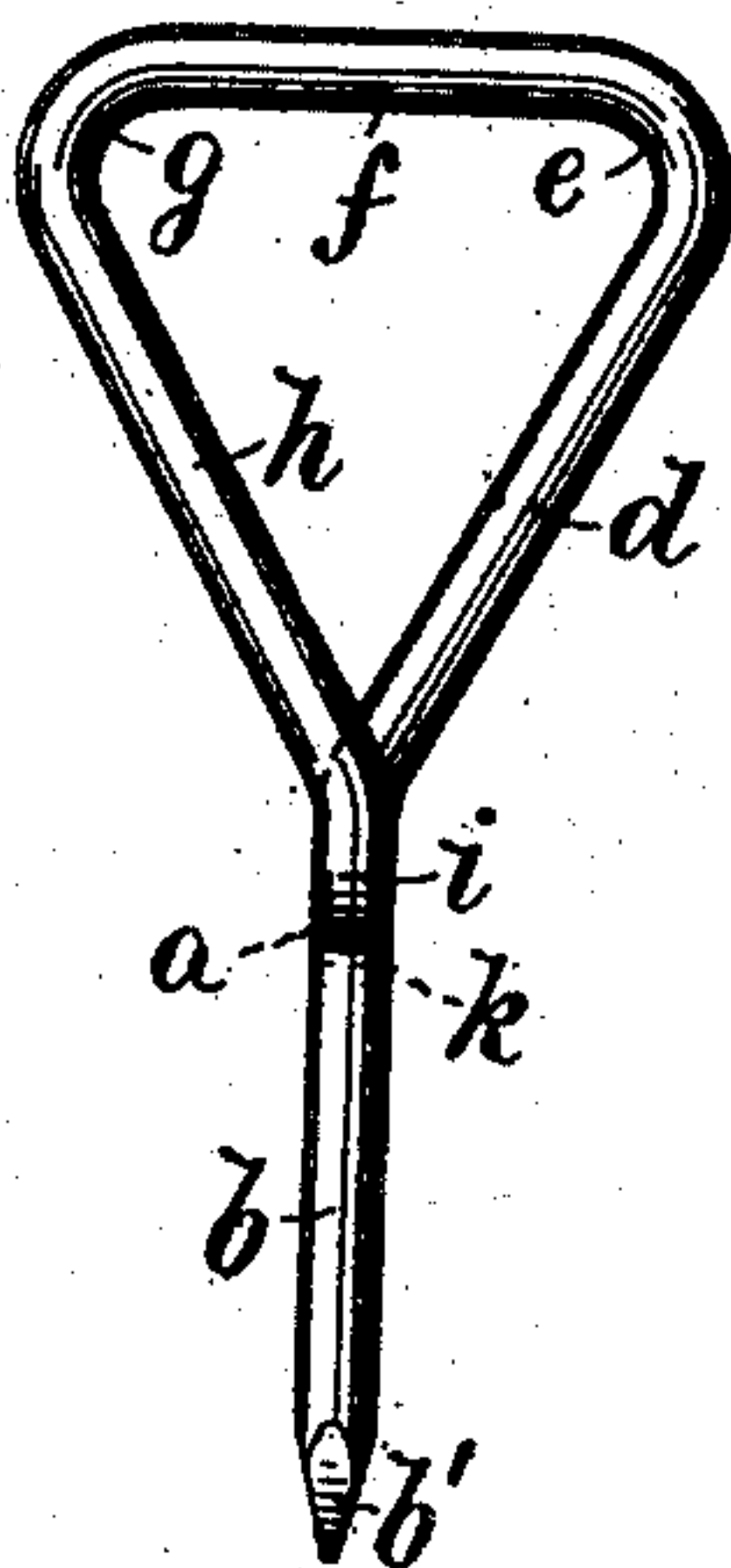


Fig 3.



Witnesses

Wells H. Johnson
Anna M. Overoff.

Inventor

John H. Hiller
by
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his Atty.

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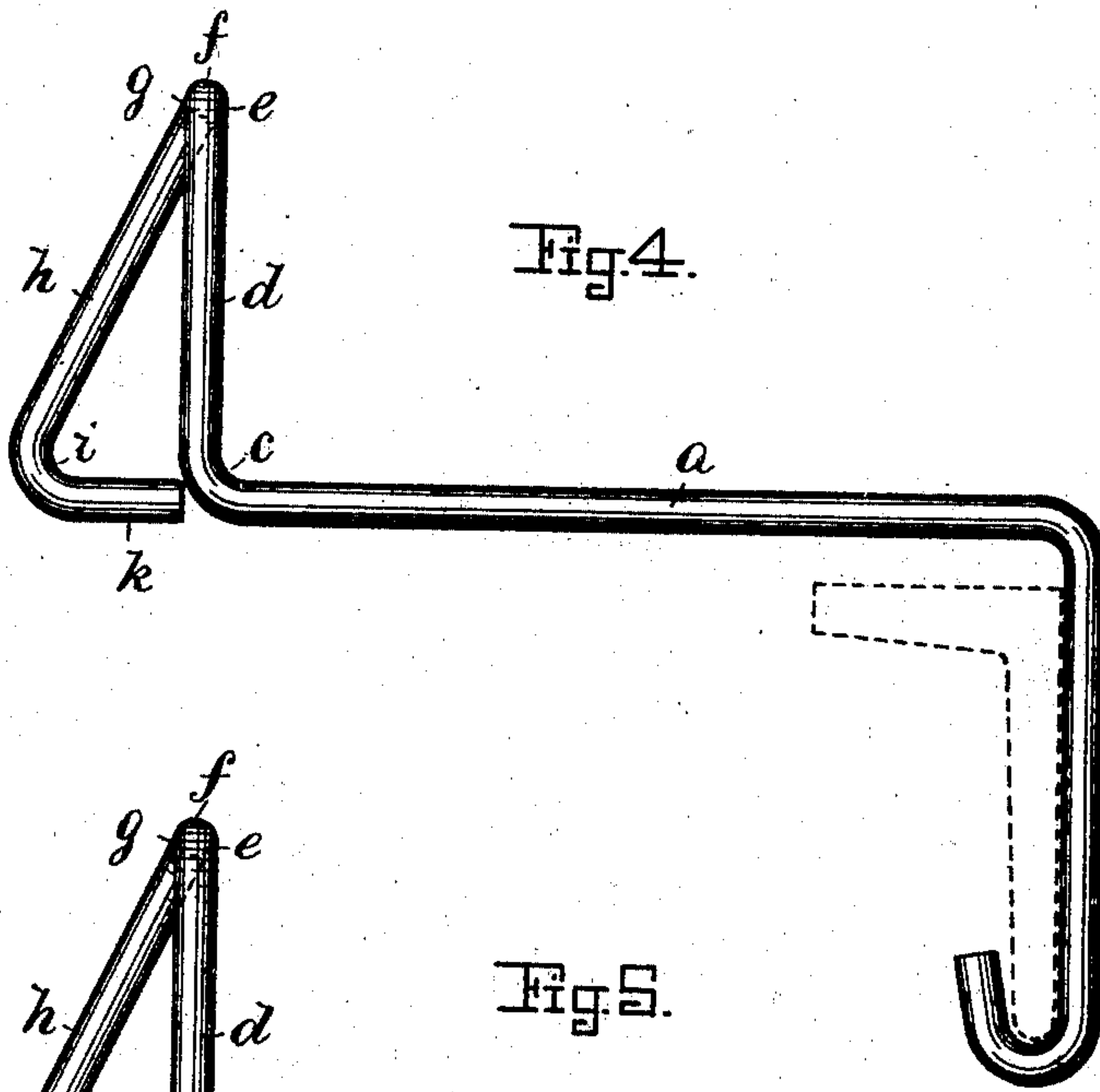


Fig. 4.

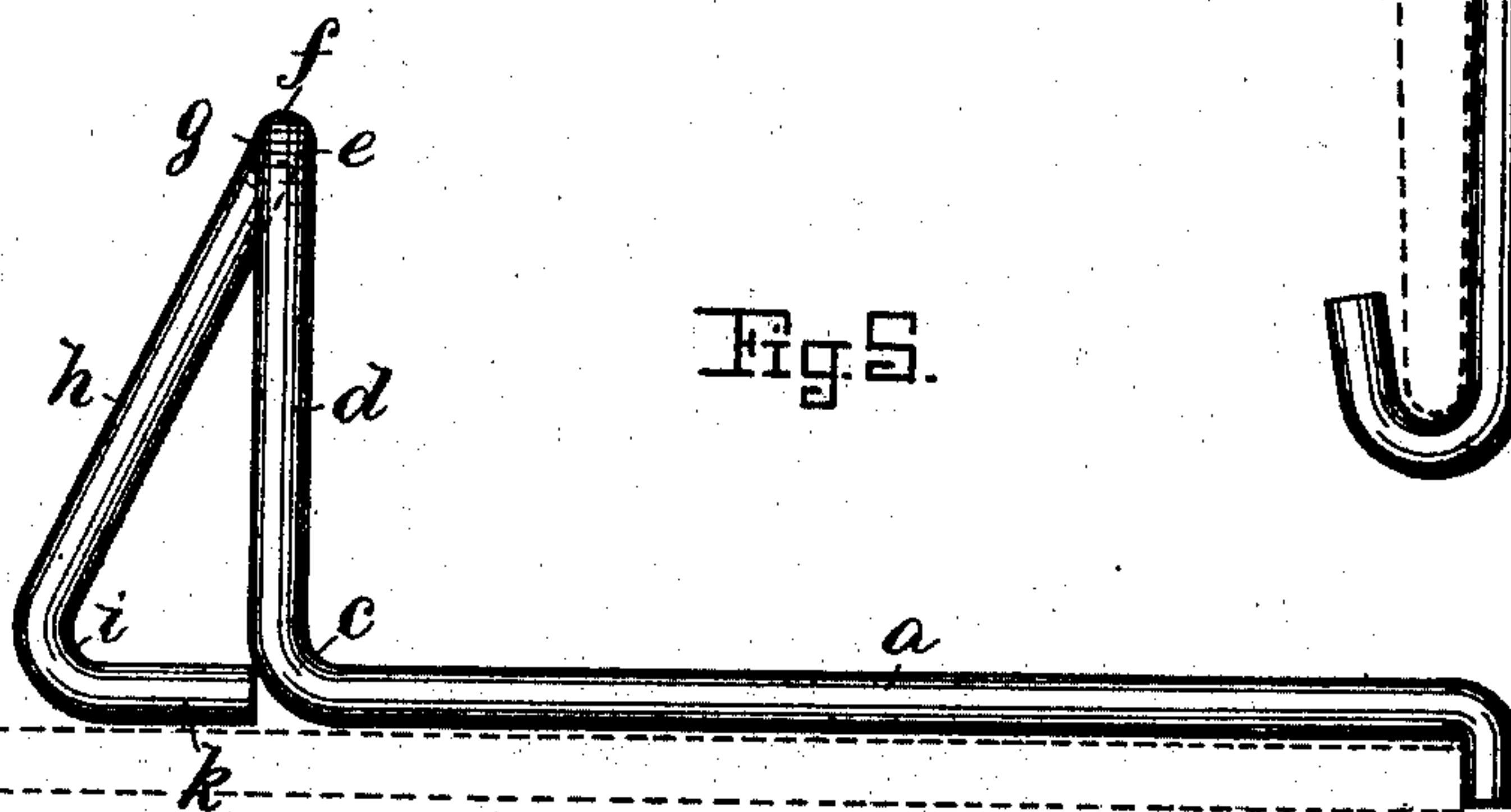


Fig. 5.

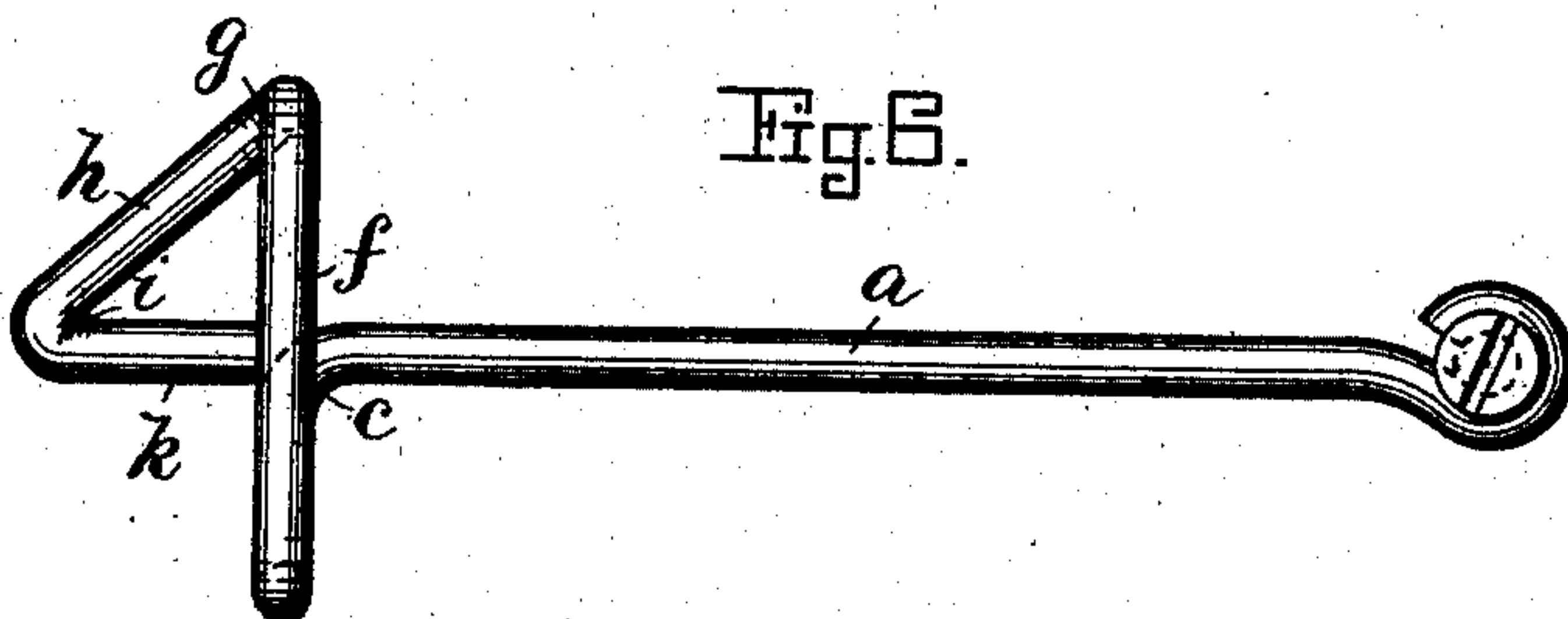


Fig. 6.

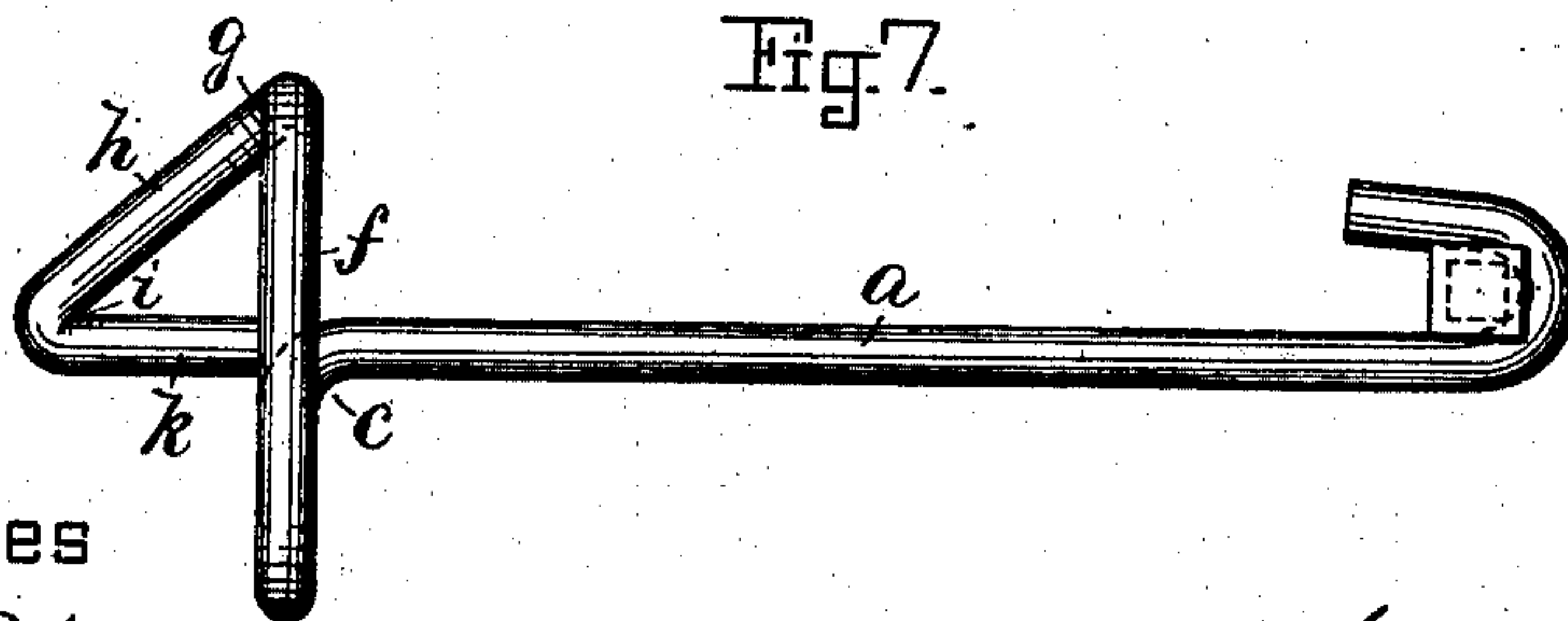


Fig. 7.

Witnesses

Minnie Phalon.
Anna M. Dolloff.

Inventor

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UNITED STATES PATENT OFFICE.

JOHN H. HILLER, OF HYDE PARK, MASSACHUSETTS.

SNOW-GUARD.

SPECIFICATION forming part of Letters Patent No. 502,490, dated August 1, 1893.

Application filed April 3, 1893. Serial No. 468,827. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. HILLER, a citizen of the United States, residing at Hyde Park, in the county of Norfolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Snow-Guards; and I do hereby declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in snow guards, and to that class of guards which are made of wire bent into the desired form, and adapted to be inserted within the joints of the slates or shingles on the roofs of buildings, and to project upward above the butt of the slate or shingle which overlaps the joint in which the guard is placed. These guards cause the snow to remain upon the roof until it melts and runs off in the form of water, thus preventing the danger of accidents by snow slides. Heretofore these guards have been made with a sharpened or pointed spike at one end, made of the wire, which is adapted to be driven into the boarding of the roof just above the upper end of the lap of the shingles or slates, and have been bent into a coil at the opposite end, which coil is bent at right angles to the body of the wire and in a line with the lower edge of the butt of the slate or shingle. The guards not only prevent the snow from sliding on the roofs, but furnish means of support for the staging used when shingling or slating the roof, or when making repairs, and they also furnish steps to assist telegraph linemen and firemen in climbing the roofs.

The guards as made heretofore are weak, and are liable to be bent down against the roof when used as a staging support, or to facilitate the climbing of the roof, and thus rendered useless. To obviate this defect in the strength of the guard is the principal object of my present invention, and I accomplish this object by so bending the lower end or the exposed part of the wire guard as to form a brace from the upper edge of this exposed part to a point on the roof below the same.

My invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents, in perspective view, a small portion of a roof provided with my improved guards. Fig. 2 represents a side elevation of the guard alone. Fig. 3 represents an end elevation of the same as seen from the lower end of the guard. Fig. 4 represents a side elevation of the guard when provided with a hook to attach it to a roof made of angle iron bars to which the slates are attached. Fig. 5 represents a similar view of the guard when adapted to hook over the top of a slate. Fig. 6 represents a plan of the guard provided with a loop and adapted to be attached to the roof by a nail or screw. Fig. 7 represents a similar view of the guard provided with a hook adapted to hook around the nails which attach the slates to the roof.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The guard is made of wire of a size and material best adapted to the use to which it is to be put. The part *a* of the wire is to rest in the joints between two adjacent slates or shingles *A* of a course, and the part *b*, bent at an approximately right angle to the part *a* and pointed at *b'* is adapted to be driven into the boarding *B* of the roof as usual, and substantially as shown in Fig. 1. The wire forming the guard is bent at *c* at approximately a right angle to the part *a*, but in an opposite direction to the part *b*, so as to cause the part *d* of the wire to project above the surface of the roof when the guard is in place as shown in Fig. 1. The wire is further bent at *e*, so that it will cause the part *f* to run parallel to the surface of the roof and in a line with the lower edge of the shingle or slate covering the joint in which the part *a* rests; it is further bent at *g* so that the part *h* will extend obliquely to the roof below the other parts of the guard and into the joint between the shingles in which the part *a* rests; and finally, the wire is bent at *i* causing the part *k* to extend upward in said joint until it nearly if not quite touches the bend at *c*. Thus it will be seen that the part *h* of the guard forms a brace or support for the parts of the same

which project above the surface of the roof and against which the snow, &c., rests, and by which it is supported. It will also be seen that when the part *k* is bent upward toward the bend *c* it will present a smooth rounded surface to rest against the slate or shingle below and will prevent the liability of having the rough end of the part *k* dig into the slate or shingle. By having the part *k* of the guard extend and rest against the bend *c* it forms a support for the part *h* when it is hit from below.

I do not wish to confine myself to the exact form in which the various parts of the guard are bent, as shown, on the drawings as they may be made into different form and still embody the essential features of my invention, which consists in providing the guard with a brace or support, as *h* extending obliquely from the upper part of the guard exposed above the surface of the roof to the roof below when the guard is in position, and in further strengthening the guard by extending the lower end of the brace in a line with the surface of the roof, until it touches or nearly touches the guard which rests in the joint between the slates or shingles. Neither do I wish to confine myself to the means shown for attaching the guard to the roof, as such means may be varied to conform to the style of and material used in the construction of the roof, as for instance, when the slates are laid upon a roof formed of iron bars the guard will be provided with a hook at the upper end adapted to be hooked upon the iron bars of the roof or the guard may be provided with a loop at the upper end and secured to the roof by means of a nail or screw.

This my improved snow guard is made with less expense, is stronger and consequently more durable than those now upon the market. It is also very effective in the accomplishment of the object for which it is designed.

I am aware that wire guards of different forms have heretofore been made but in none of them is there means used substantially as

the part *h* or its extension *k* to strengthen the guard so as to prevent it from being bent down against the roof.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. A wire snow guard for roofs, consisting of the portion *a* adapted to rest in the joint between two adjoining slates or shingles of a course, the part *b b'* to secure the guard to the roof, and the portions *d, f* and *h* projecting above the roof and forming the guard proper, the portion *h* forming a brace to strengthen and support the portions *d* and *f*, substantially as set forth.

2. A wire snow guard for roofs, secured to the roof by suitable fastening devices as described and having the portion *d* projecting upward from the surface of the roof, the portion *f* extending in a line parallel with the courses of the slates or shingles and the portion *h* extending obliquely from the portion *f* to the roof below the portion *d*, for the purpose set forth.

3. A wire snow-guard for roofs, secured to the roof by suitable fastening devices as described, having the portions *d, f* and *h* projecting above the roof, forming the guard proper, the portion *h* forming a brace to strengthen and support the portions *d* and *f* and the portion *k* extending along the surface of the roof to the portion *d* for the purpose set forth.

4. A wire snowguard for roofs, secured to the roof by suitable fastening devices as described, having the portions *d, f* and *h* projecting above the roof, forming the guard proper, the portion *h* forming a brace to strengthen and support the portions *d* and *f*, substantially as set forth.

In testimony whereof I hereunto set my hand and affix my seal this 30th day of March, A. D. 1893.

JOHN H. HILLER. [L. S.]

In presence of—

HENRY CHADBURN,
ANNA M. DOLLOFF.