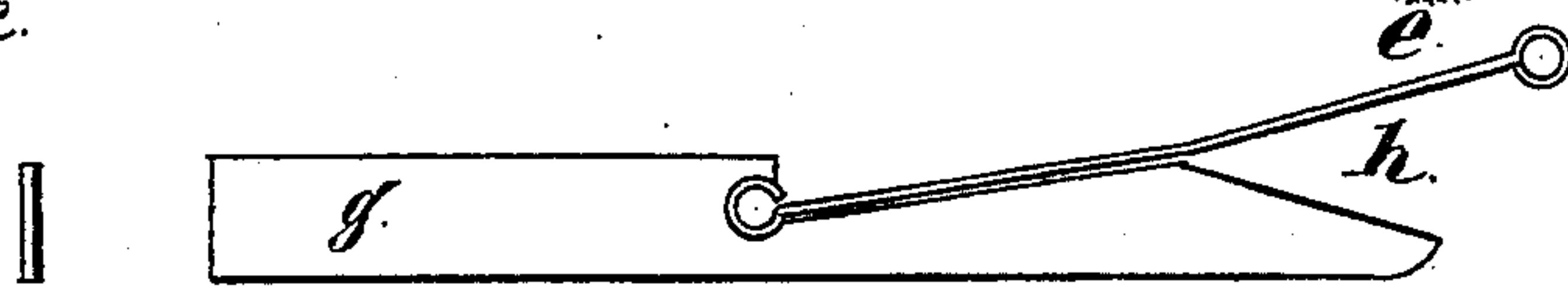
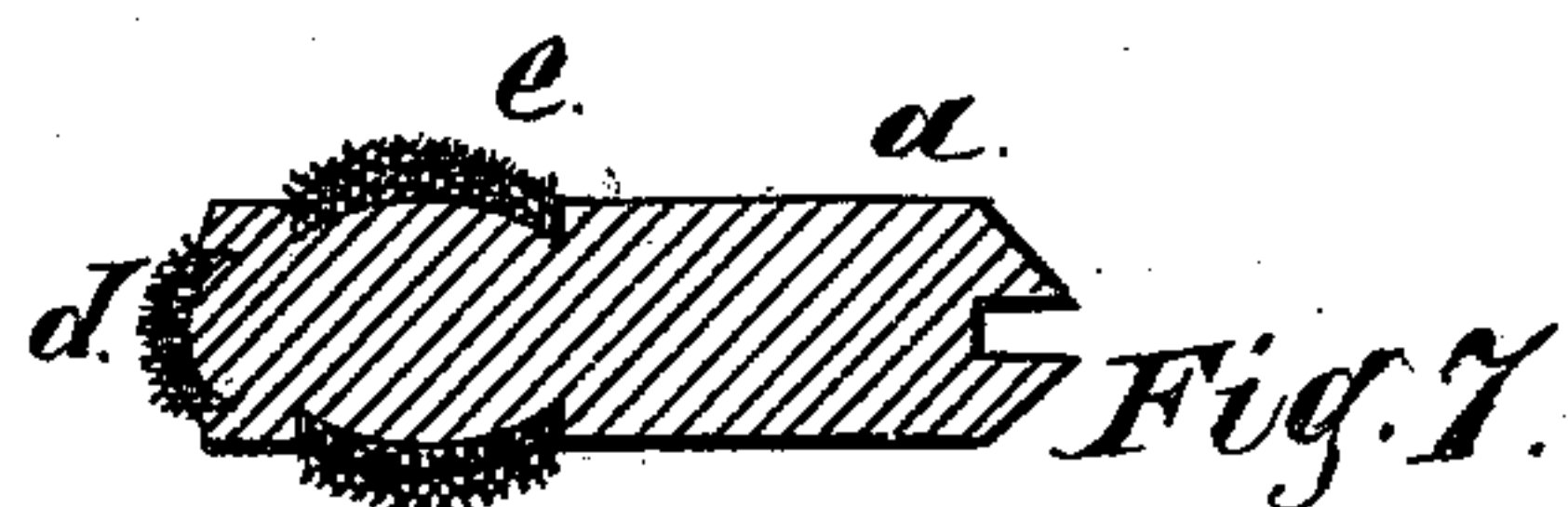
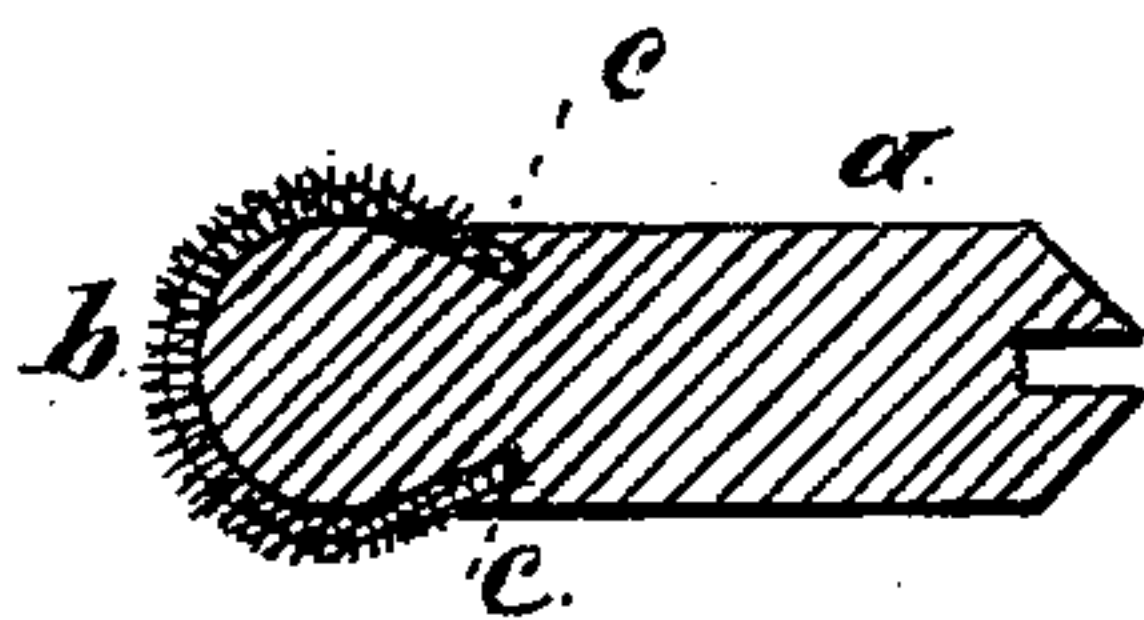
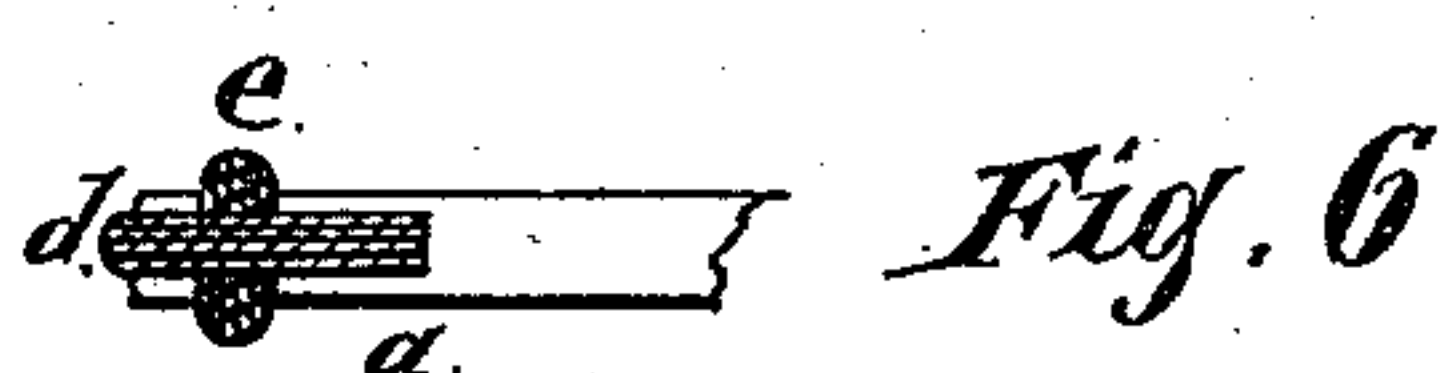
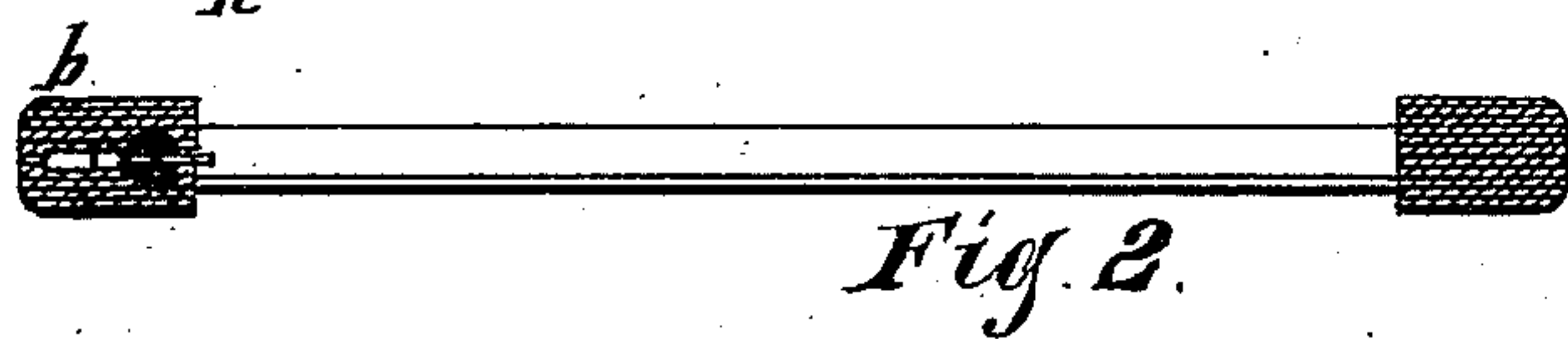
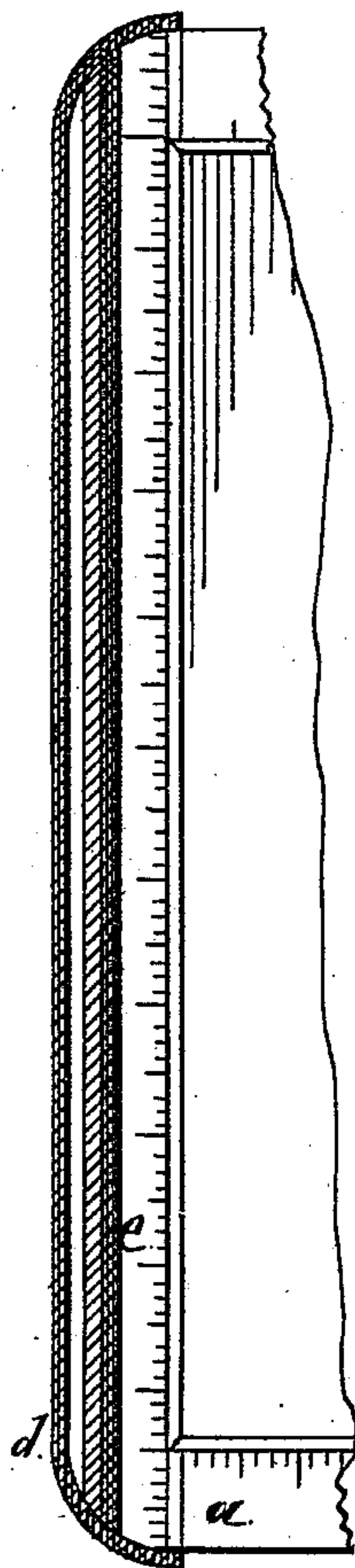
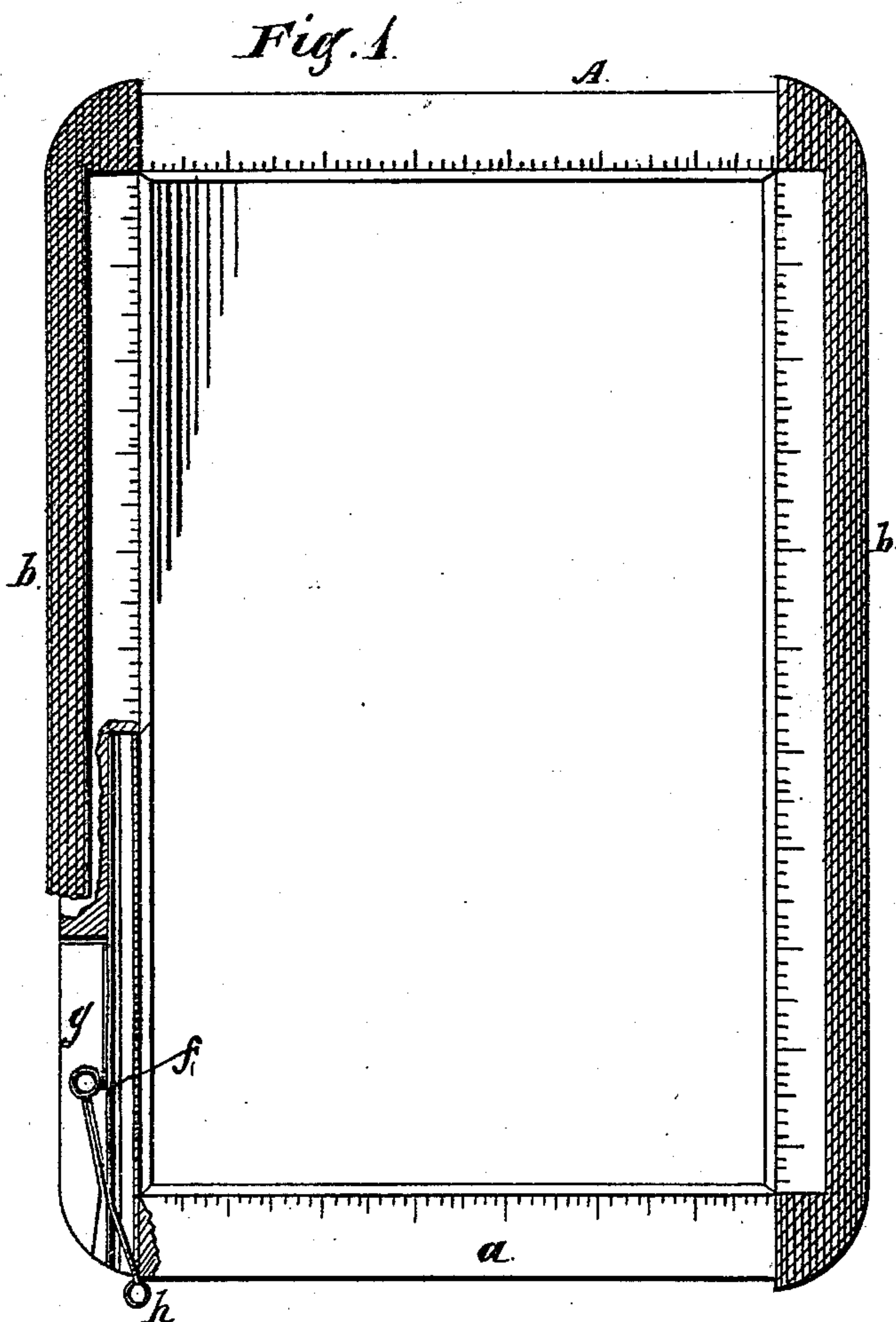


H. L. ANDREWS.  
Slate-Frame.

No. 213,028

Patented Mar. 11, 1879.



Witnesses:  
E. A. West  
C. W. Bond

Inventor:  
H. L. Andrews

# UNITED STATES PATENT OFFICE.

HERBERT L. ANDREWS, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN SLATE-FRAMES.

Specification forming part of Letters Patent No. **213,028**, dated March 11, 1879; application filed April 9, 1878.

*To all whom it may concern:*

Be it known that I, HERBERT L. ANDREWS, of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Slates, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan; Fig. 2, an end elevation; Figs. 3 and 4, enlarged details. Figs. 5, 6, and 7 show a modification of the method of application of noiseless material.

It is customary to provide the edges of slate-frames with cloth or similar material to render them noiseless; also, to provide the frame with a pencil-holder.

Heretofore the edges of the cloth have been left exposed, and when so left it is liable to be loosened and displaced, either by accident or as the result of use, or by the action of the pupil.

My invention consists in providing the frame of the slate with suitable grooves to receive the edges of the cloth, or other similar material, and protect them from displacement, as hereinafter more fully set forth.

In the drawings, A represents a slate-frame. *b* is a strip of cloth or similar suitable material, the edges of which are inserted into grooves *c*, as shown in Fig. 3. As shown in this figure, these grooves are cut at an angle, and the ends of the cloth, when inserted in such grooves, are completely protected by the wood, so that such edges cannot be displaced by ordinary use; and the pupil cannot, without much difficulty, loosen the edge of the cloth at any point.

I do not limit myself to the form of groove shown in Fig. 3; neither is it absolutely necessary that the wood protect the edges as perfectly as shown in Fig. 3.

The cloth can be held in place in any suitable manner. Glue or a suitable cement may be used.

In Figs. 5, 6, and 7, I have represented one other form of carrying out my invention in this respect, in which figures *d* is a narrow strip of cloth upon the outer edge of the frame, the edges of the cloth being let into grooves in the frame, and *e e* are strips upon the sides of the frame, the edges of the cloth being also let into the frame.

I do not regard this form as desirable as that shown in Fig. 3, because the edges of the cloth are not as well protected as in the other form, and there are more edges to be protected.

As represented, the noiseless material is not placed upon the ends of the frame, but the ends might be provided with such material.

When the noiseless material is placed over the edge of the frame, as shown in Fig. 3, I locate the grooves as near as may be to the outer edge of the frame.

The inner edge of the frame is provided with a measure stamped on the frame, which has proved a desirable feature in use. In practice I use the common measure on one side, and the decimal form on the other side.

What I claim as new, and desire to secure by Letters Patent, is as follows:

A slate-frame provided with a continuous groove or recess, in combination with a noiseless material, the edges of said material being secured in the groove, substantially as and for the purpose set forth.

HERBERT L. ANDREWS.

Witnesses:

E. A. WEST,  
O. W. BOND.