

W. H. SCHOFIELD.
Shuttles for Sewing-Machines.

No. 143,303.

Patented September 30, 1873.

Fig. 1.

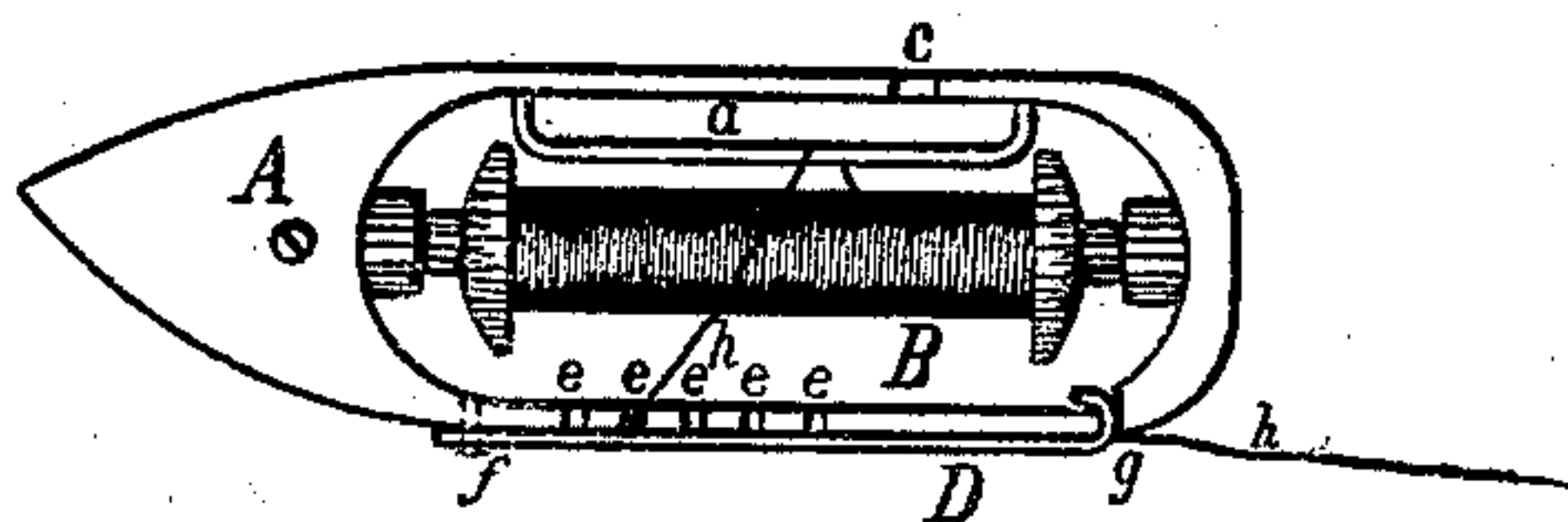


Fig. 2.

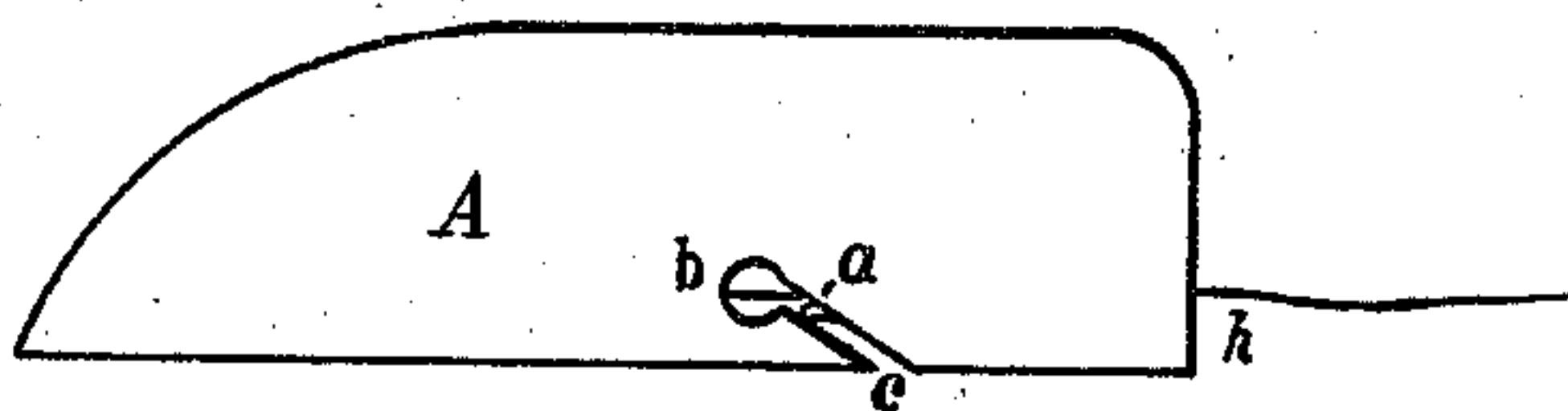


Fig. 3.

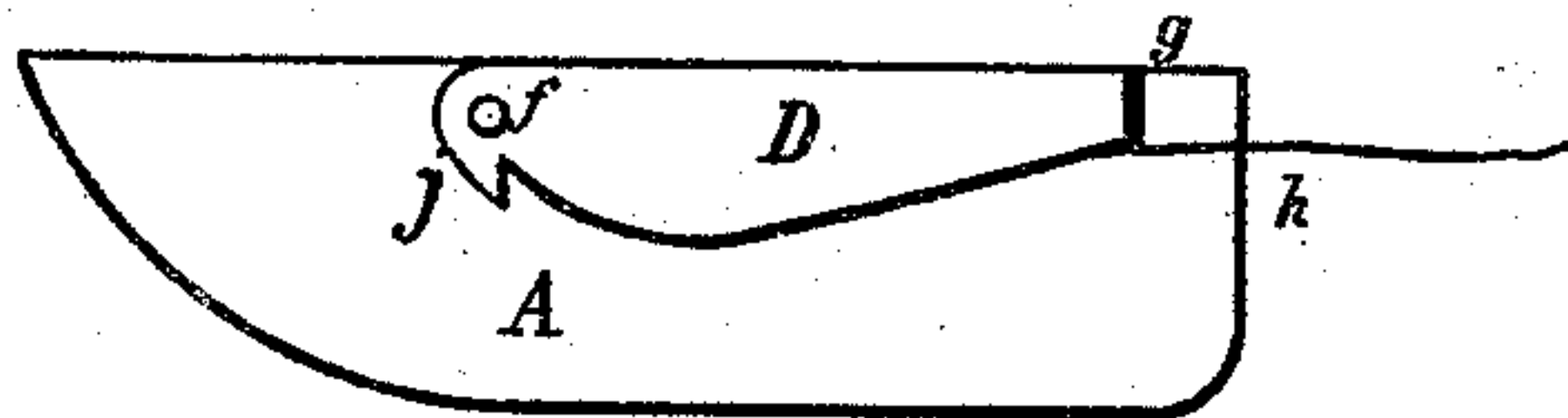
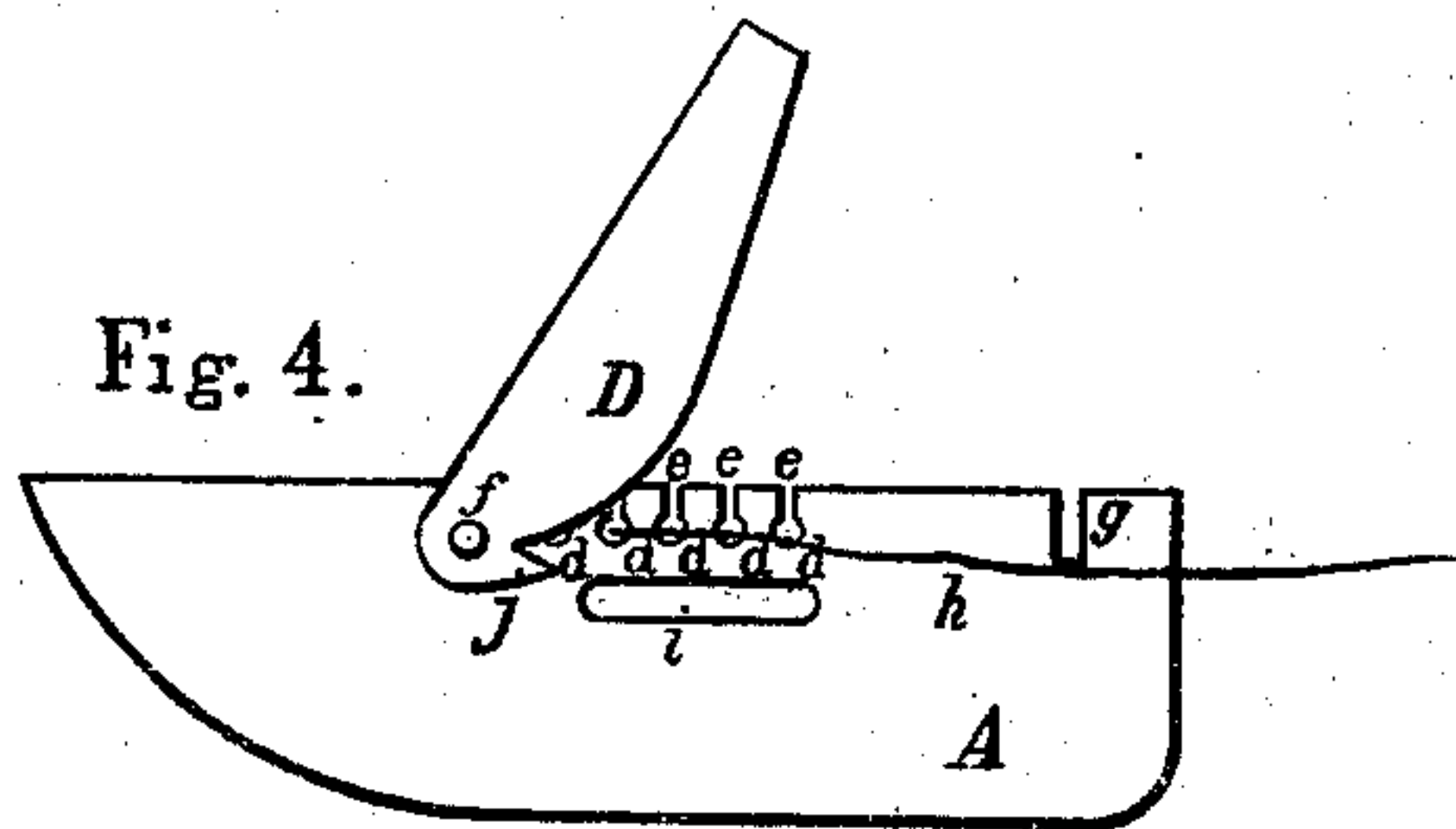


Fig. 4.



Scale.
2 in.
1 inch

WITNESSES

Sam^l F. Thompson
Walter Hoxie

INVENTOR

William H. Schofield
per. Edw. Dummer
Att.

UNITED STATES PATENT OFFICE.

WILLIAM H. SCHOFIELD, OF SOMERVILLE, ASSIGNOR OF ONE-HALF HIS
RIGHT TO JOHN F. DONNELL, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **143,303**, dated September 30, 1873; application filed
April 11, 1873.

To all whom it may concern:

Be it known that I, WILLIAM H. SCHOFIELD, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Sewing-Machine Shuttles, of which the following is a specification:

My invention relates to the mechanism of the shuttle for obtaining the tension on the thread; the object of my invention being to obtain a regular and reliable tension.

Figure 1 shows a plan of the shuttle in reverse position. Fig. 2 shows an elevation of one side of the shuttle in working position. Fig. 3 shows an elevation of the other side of the shuttle in reversed position, having the tension-spring in working position in relation to the shuttle. Fig. 4 shows the same side as Fig. 3, but with the tension-spring thrown up.

A is the shuttle; B, the bobbin. D is the tension-spring. This spring is pivoted at *f* to swing, as shown, and hooks, when in working position, into a slot, *g*, whereby it is held in place and gives the required pressure upon the thread. The thread *h* passes through one or

more of the holes *d*, or alternately through the slot *i* and holes *d*, according to the amount of tension required, and then passes between the spring D and the side of the shuttle, taking the direction shown.

The use of the spring D insures the necessary even tension and at the proper place. The spring D being naturally harder than it is practicable to make the body of the shuttle, makes the shuttle more durable in its wearing-surface, since this hardened spring acts as part of one bearing side of the shuttle. The hook *j* prevents the thread from getting in the joint at *f* on the backward movement of the shuttle, and also prevents unnecessary slack of thread.

I claim as my invention—

The tension-spring D, pivoted at *f*, made to hook into the slot *g*, and having the hook *j*, substantially as and for the purpose hereinbefore set forth.

WILLIAM H. SCHOFIELD.

Witnesses:

EDW. DUMMER,
WALTER HOXIE.