G. W. LOOMIS.

Shuttles for Sewing-Machines.

No. 152,041. Patented June 16, 1874.

Fig. 1

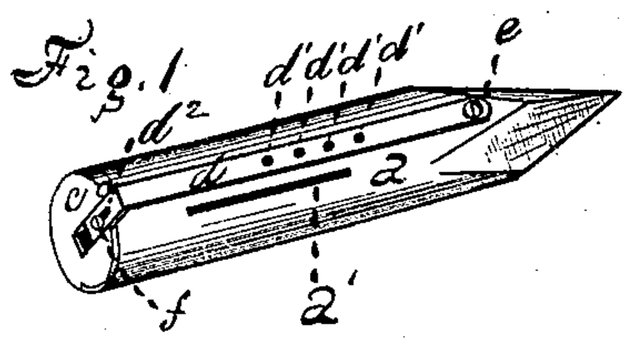


Fig. 2.

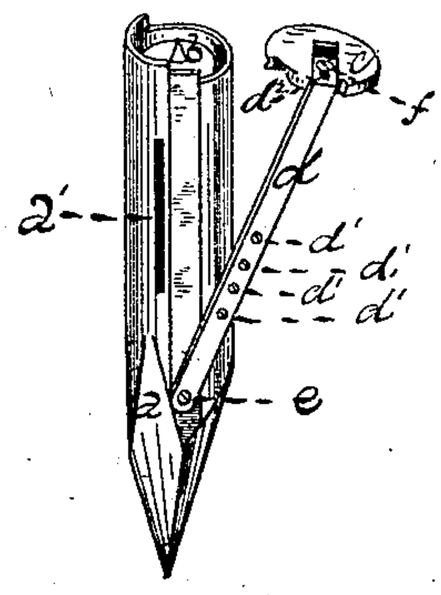
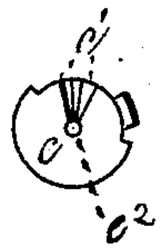


Fig. 3.



Witnesses.

John Pollitt

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Inventor

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AM. PHOTO-LITHOGRAPHIC CO. N. Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

GEORGE W. LOOMIS, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO ROBERT H. ASHMEAD, OF SAME PLACE.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **152,041**, dated June 16, 1874; application filed February 4, 1874.

To all whom it may concern:

Be it known that I, GEORGE W. LOOMIS, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements pertaining to Sewing-Machine Shuttles, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a perspective view of the shuttle embodying my said improvements closed. Fig. 2 is a view of the same shuttle opened. Fig. 3 is a view of the inner face of the cap.

The shuttle is one of the kind known as a closed shuttle in distinction from the open or boat shuttles used in some sewing-machines.

The invention consists in the parts and combinations of parts specified in the claim at the end of this specification.

The body of the shuttle *a* is much like the body of any closed shuttle, open at the butt. The bobbin *b* is seen inside in Fig 2. The cap *c*, which closes the butt-end, is attached to the end of the arm *d*, the opposite end of which is pivoted at *e* to the outside of the body of the shuttle, so that this arm bearing the cap *c* can swing to one side, as shown in Fig. 2. The arm *d* is a spring, and tends to draw the cap toward that side of the shuttle on which this arm is situated, so that when the cap is swung into position shown in Fig. 1 it springs or snaps into place, and is thereby held securely in place. The inner face of the cap *c* has a groove, c^1, running from the circumference to the center, and diminishing in breadth to the center, forming a guide, which directs the arbor of the bobbin to the center or bearing c^2. The thread comes from the bobbin out through the slot a', and gets its tension by being passed through a greater or less number of the holes d^1 in the arm *d*. The tension can be increased by adjusting the arm *d* toward the body of the shuttle. Such adjustment can be regulated by means of the screw *f* running through the slot d^2 in the arm into the cap. The shape of the butt-end of the shuttle is such that when the cap *c* is swung into place the corners and sides of the shuttle, as a whole, are regular and unbroken.

I claim as my invention—

The combination of the body *a* with the perforated spring-arm, adjustably connected to the cap, when arranged to operate as set forth.

Witnesses: GEORGE W. LOOMIS.
WM. EDGAR SIMONDS,
JOHN POLLITT.