

(No Model.)

G. W. LASCELL.
SEWING MACHINE NEEDLE.

No. 459,913.

Patented Sept. 22, 1891.

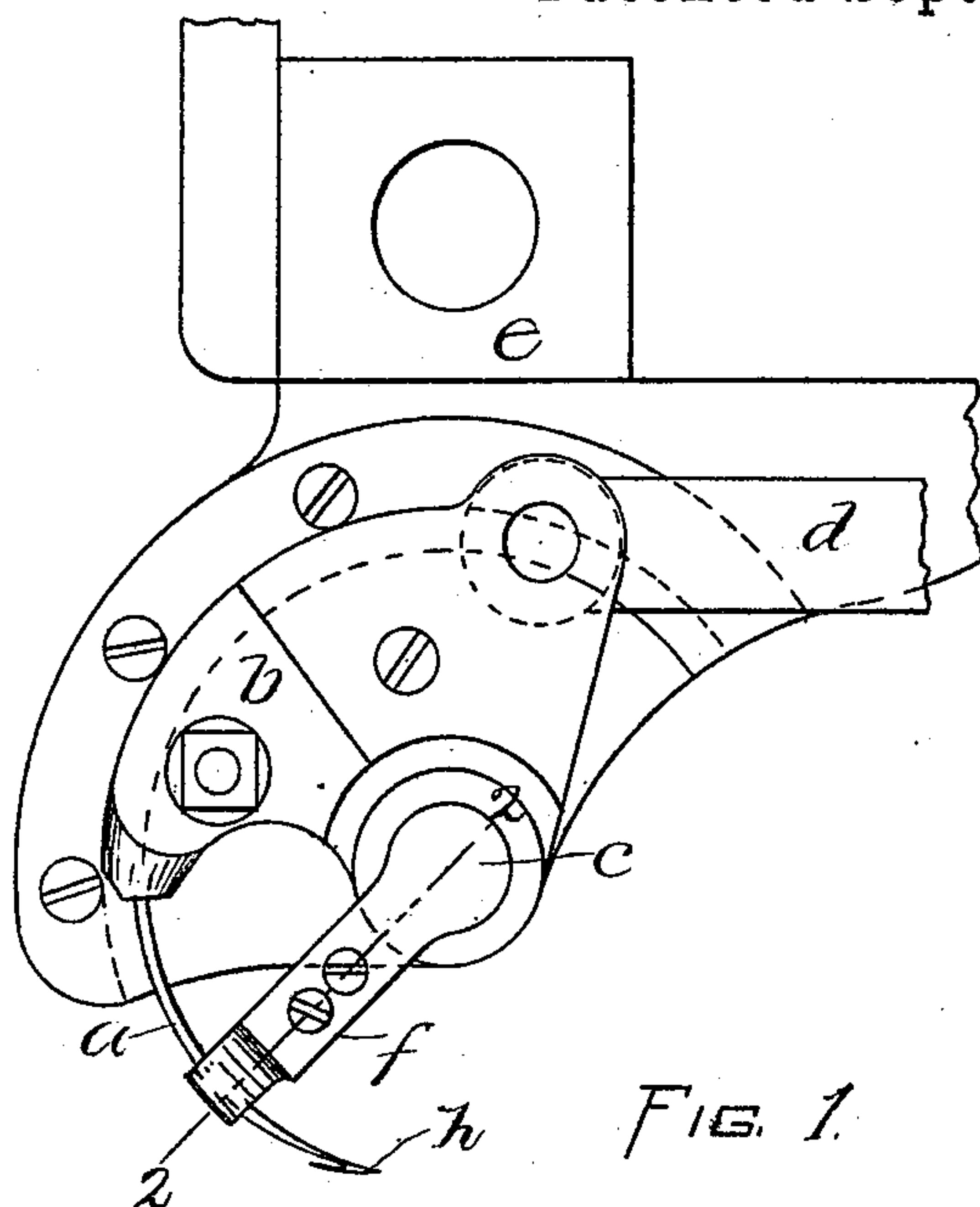


FIG. 1.

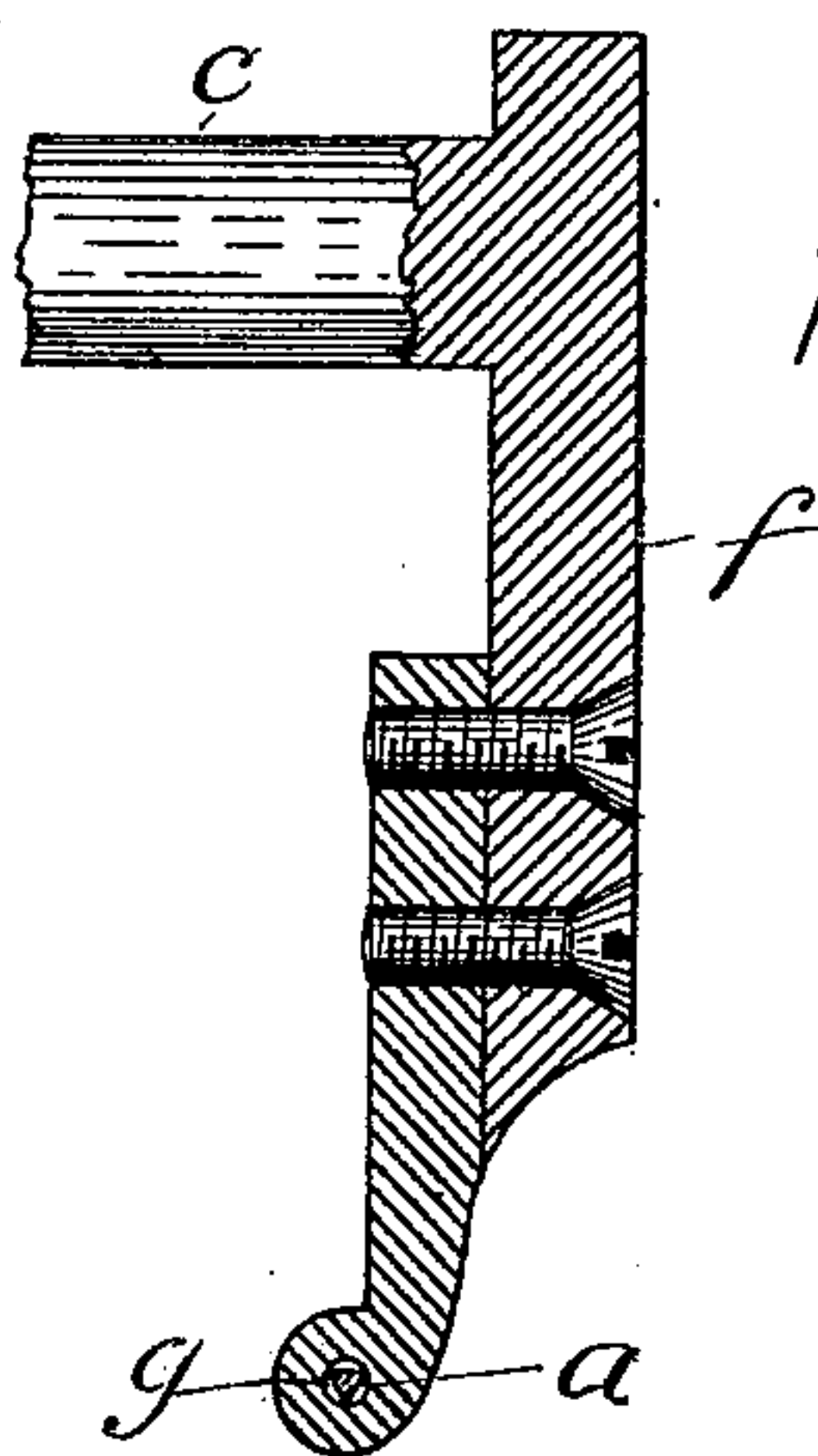


FIG. 2.

WITNESSES:
A. D. Hanson.
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UNITED STATES PATENT OFFICE.

GEORGE W. LASCELL, OF LYNN, MASSACHUSETTS.

SEWING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 459,913, dated September 22, 1891.

Application filed April 27, 1891. Serial No. 390,613. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. LASCELL, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sewing-Machine Needles, of which the following is a specification.

My invention relates to curved sewing-machine needles generally, and particularly to needles of the kind mentioned which are employed in the sewing of leather, as in the manufacture of boots and shoes, harness, &c.

It is the object of the invention to provide such an improvement as will strengthen and stiffen the needle without increasing its size, and at the same time enhance its operative qualities.

The invention consists of a curved sewing-machine needle of triangular form in cross-section from its eye to a point toward its heel corresponding substantially to the limit at which the needle operates in the material or needle-guide.

Reference is to be had to the annexed drawings and the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

In the drawings, Figure 1 is a side view of my improved needle and a needle-guide in connection with immediately-associated parts of a sewing-machine. Fig. 2 is a sectional view taken on the line 2 2 of Fig. 1, showing the form of the needle in cross-section, as also the form of the hole or aperture in the needle-guide.

In the drawings, *a* designates my improved curved needle.

b is the needle-holder, adapted to be rocked on the shaft or stud *c* by means of the reciprocating bar *d*.

e is a portion of the frame-work of the machine for supporting the operative parts.

f designates the needle-guide, provided with a hole or aperture *g*, through which the needle *a* passes when the same is in use.

All of the parts mentioned, excepting the needle *a*, may be of usual construction. The said needle is possessed of a novel structural character, in that it is made of triangular form from its point or eye *h* rearward to a point corresponding substantially to the extent to which it operates in the needle-guide *f*. The form of the needle is clearly shown in sectional view in Fig. 2.

In the use of a curved needle round in form in cross-section, as heretofore common, there is great liability of "glancing" of the needle, so that it will not operate in a proper line, and, furthermore, the draft of the thread on the said old form of needle has a tendency of straightening it out, thereby producing great friction in the needle-guide, as well as in the awl-hole of the work. With my improvement the difficulty mentioned is overcome, the angles of the needle operating in the nature of ribs and tending to stiffen it and prevent it from springing or bending, lessening the labor of holding the shoe in position and enabling the operator to do better work than heretofore. As shown in the drawings, the shape of the needle in cross-section is triangular, with one of the angles located at the back thereof—or, in other words, extending longitudinally along the center of its outer curve. By this construction the needle is stiffened in an obvious manner. Again, with the old form of needle it was necessary to have a separate needle-guide for each size of needle, the form and arrangement of which were such that the needle nearly filled the guide-eye. With this construction fibers of leather were not infrequently drawn into the guide-eye, forming a kind of bushing around the needle, which it was necessary to frequently remove. With my improvement this difficulty does not occur, it being found in practice that the needle frees itself from fiber and keeps the guide-eye entirely clear of the same.

Having thus explained the nature of my invention and described a way of constructing and using the same, I declare that what I claim is—

A curved sewing-machine needle of triangular form in cross-section from its eye to a point toward its heel corresponding substantially to the extent to which it operates in the needle-guide, one angle extending along the center of the back or outer curve of the needle, as and for the purposes hereinbefore set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 22d day of April, A. D. 1891.

GEORGE W. LASCELL.

Witnesses:

A. P. ADAMS,
H. H. KNIGHT.