

*J. Cottrell,  
Needle.*

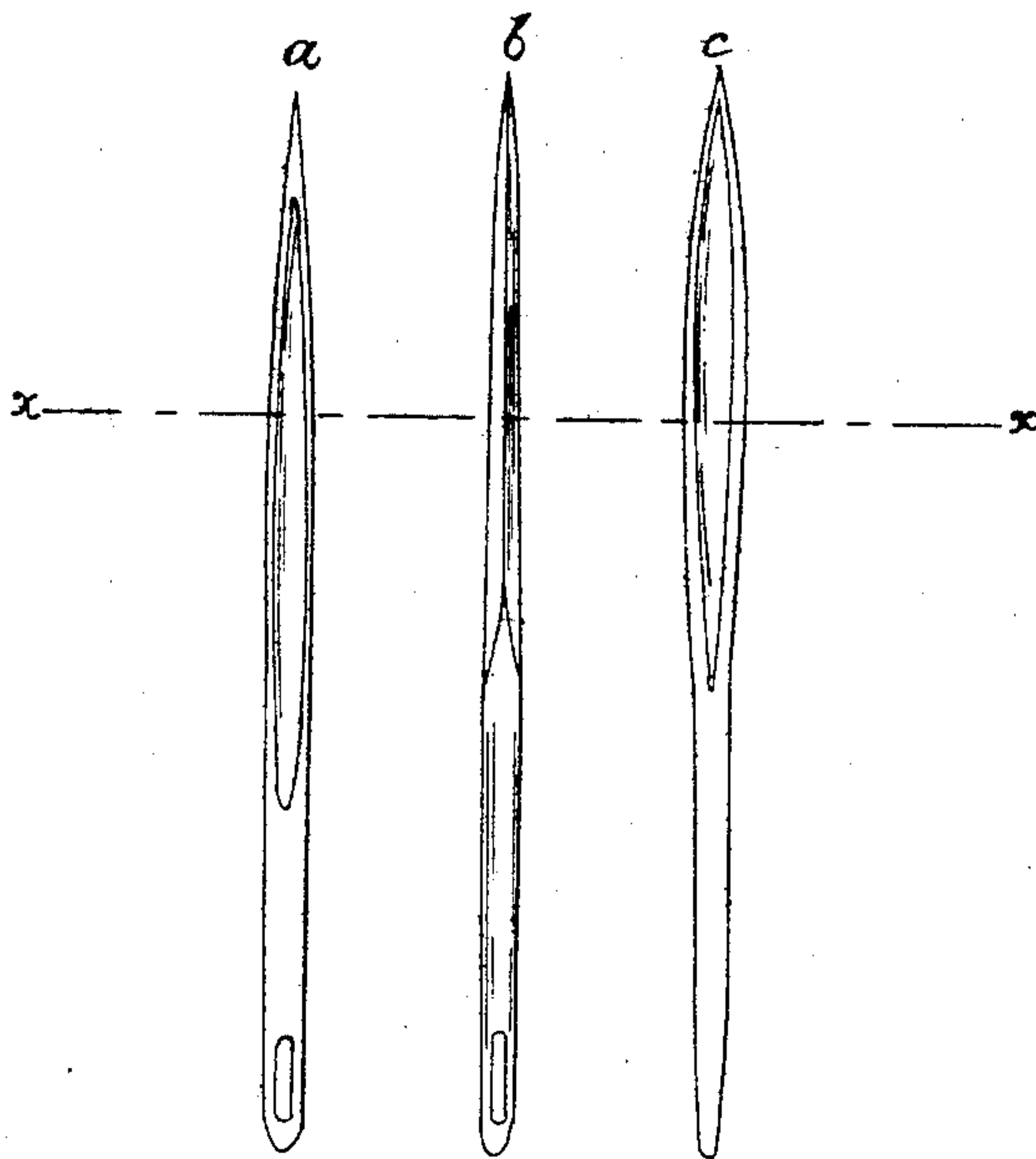
*No. 20409*

*Patented June 1, 1858*

*Fig. 2.*



*Fig. 1.*



# UNITED STATES PATENT OFFICE.

JAS. COTTRILL, OF STUDLEY, ENGLAND.

## IMPROVEMENT IN SEWING-NEEDLES.

Specification forming part of Letters Patent No. 20,409, dated June 1, 1858.

*To all whom it may concern:*

Be it known that I, JAMES COTTRILL, of Studley, in the county of Warwick and Kingdom of England, needle-manufacturer, a subject of her Britannic Majesty, have invented Improvements in the Manufacture of Certain Descriptions of Needles; and I do hereby declare that the following is a full and exact description of my said invention, reference being had to the drawings accompanying this specification, in which are shown in—

Figure 1 views of different-formed needles; Fig. 2, cross-sections of the same on the line *x x* of Fig. 1.

My invention refers to the kinds of needles known as "sail-making needles," "packing-needles," "glovers' needles," and any other similar kind of needles which are or may be most conveniently made triangular, or, what are usually termed by the workmen, "three-square in section for any portion or the whole of their length;" and my improvements consist in grooving or fluting one or more of the sides of such needles in the form and after the manner in which the sides of a bayonet-blade are fluted; and, although I do not confine myself to any particular mode of effecting this, I find the process of stamping in the flutes by the employment of suitable matrices and ribbed dies or hammer-heads to be well adapted for the purpose, afterward clearing out the flutes, if necessary, with rotating cutters mounted in a lathe and working in manner similar to a circular saw, or by revolving stones or other suitable means when the needles are of a size to admit of such operations; or, if preferred, the flutes may be produced entirely by means of

the rotary cutters or stones above named, the object of the invention being to produce a needle which, for the purposes I have before mentioned, shall be capable of more easily and expeditiously perforating the fabric or material to be worked on.

In the drawings, *a*, Figs. 1 and 2, is a needle having three angles or cutting-edges, the faces or sides being grooved as described. *b* is one having four angles or edges, and *c* is a broad flat needle with a groove formed on each of its broad sides. By thus cutting away a portion of the material throughout the larger part of the needle a better cutting-edge is obtained and less bearing-surface is in contact with the material through which the needle is passed in sewing. It consequently requires less force to make it penetrate.

I would remark that I am well aware that grooved needles have already been employed in sewing-machines; but such needles are not of the form I have described, nor are they fluted in the same form as a bayonet-blade, which form I find the best for the purpose.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The sewing-needle herein described as a new article of manufacture—that is to say, giving the space between the cutting-edges of the triangular or equivalent formed needle a concave form, substantially in the manner and for the purposes described.

JAMES COTTRILL.

Witnesses:

EDWARD J. PAYNE,  
J. M. G. UNDERHILL.