

RUSSELL S. MORSE.

Improvement in Scissors Grinding Attachment for Sewing Machines.

No. 121,537.

Patented Dec. 5, 1871.

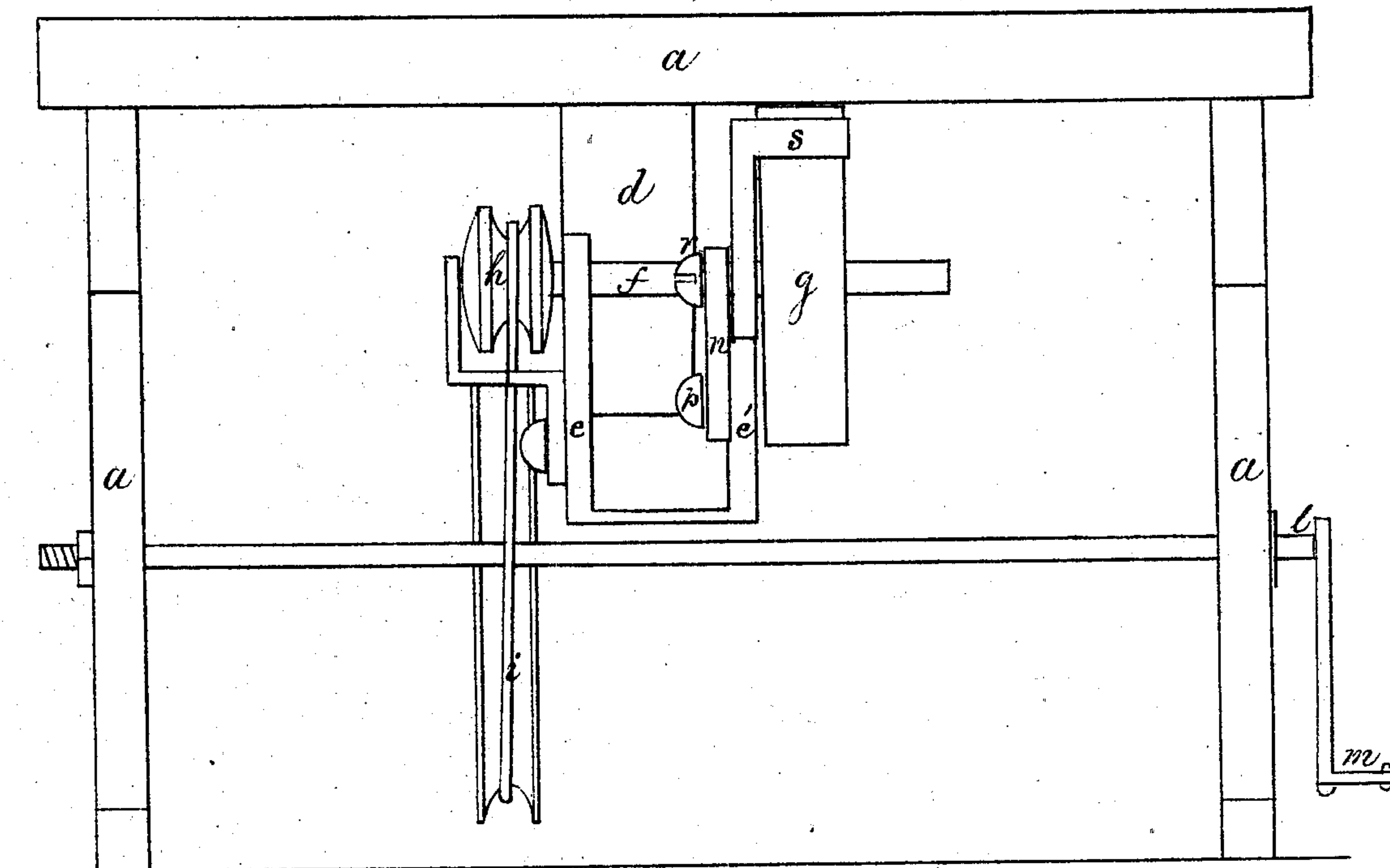


Fig. 1

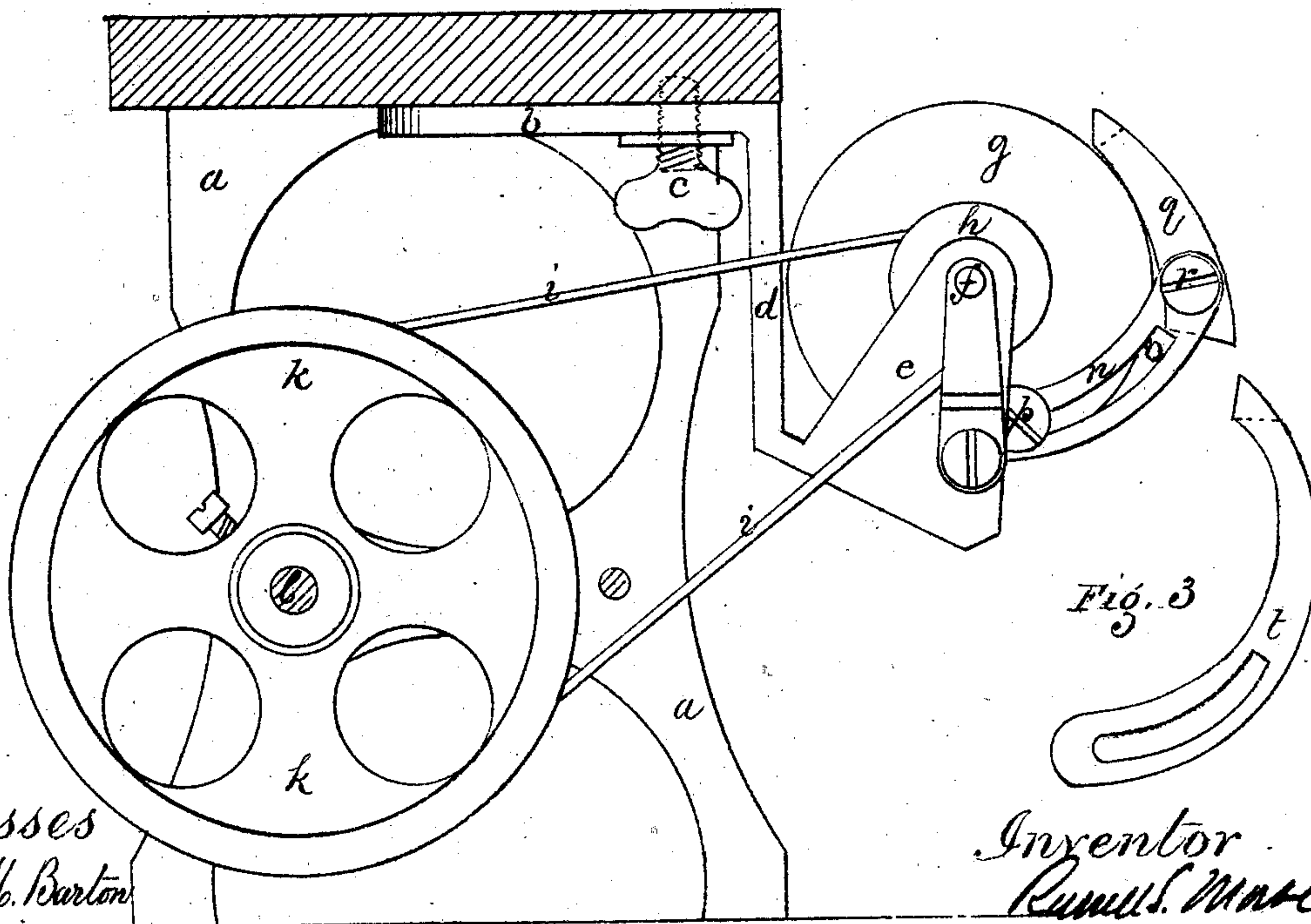


Fig. 2.

Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

RUSSELL S. MORSE, OF EAST DIXFIELD, MAINE.

IMPROVEMENT IN SCISSORS-GRINDING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 121,537, dated December 5, 1871.

To all whom it may concern:

Be it known that I, RUSSELL S. MORSE, of East Dixfield, in the county of Oxford and State of Maine, have invented certain Improvements in Grinding Attachment for Sewing-Machines, of which the following is a specification:

Figure 1 in the drawing is a front view, and Fig. 2 is a transverse vertical section through one end of my improved apparatus. Fig. 3 is a part, in detail, of a modification of my apparatus.

The object of the present invention is to produce a simple and convenient apparatus which may be readily adjusted to a sewing-machine or other frame or table, and by means of which scissor or other blades may be evenly and efficiently sharpened. My improvement consists in so forming and operating a series of devices connected with a sewing-machine or other frame, and to be explained more fully hereinafter, as to adjust and hold a scissor or other blade at any desired angle with a revolving grinding-wheel, thereby allowing an even and uniform edge to be formed on the blade. It also consists of so arranging and operating the apparatus hereinafter described as to admit of its being turned under the table or frame when not in use.

a a a in the drawing represent a sewing-machine or other frame, to which my improved apparatus is attached by means of a slotted bar, *b*, which plays on a thumb-screw, *c*, by which it is secured to the frame *a a a*, and which allows of its being turned under the frame *a a a* when not in use. The slotted bar *b* is formed with a bar, *d*, at right angles with it, extending downward, and provided with standards *e e'* which support an axle, *f*, that revolves a grinding-wheel, *g*, and a wheel, *h*, which connects, by means of a cord or belt, *i*, with a fly-wheel, *k*, attached to an axle, *l*, which is operated by a crank, *m*, or by any other suitable means. Attached to the standard *e'* is a curved arm, *n*, formed with a slot, *o*, working on a screw-bolt, *p*. Connected with the arm *n* is a curved arm, *q*, turning on a screw-pivot, *r*. The upper portion of the arm *q* has formed at right angles to it an angular gauge piece, *s*.

The operation of my improved apparatus is as

follows: By unloosening the thumb-screw *c* the slotted bar *b*, which plays on it, and, consequently, the several appurtenances connected with the bar *b*, are brought out from under the top of the frame *a a a*, where they are, for convenience, usually held, into the position shown in the drawing, Fig. 2. The gauge piece *s* is then arranged to the angle with the grinding-wheel *g*, to which it is desired to grind the edge of the blade, by means of the arm *q* turning on the screw-pivot *r*, by which it may be either loosened or tightened, as required, to hold or unfasten the arm *q*, together with the curved arm *n*, which, by means of the slot *o* playing on the screw-bolt *p*, allows the arm *q*, and, consequently, the gauge piece *s*, to be adjusted in any position desired. The blade is then placed and held between the gauge piece *s* and the grinding-wheel *g*, and, by operating the fly-wheel *k*, motion is imparted to the grinding-wheel *g*, which bears against the blade, which is firmly held by the gauge piece *s*, thus insuring the grinding of a uniform and even edge to the scissors or other blade.

Instead of the two adjustable arms *q* and *n* one stationary arm, *t*, Fig. 3, formed with a gauge piece similar to the one, *s*, formed on the arm *q*, may be employed; but the two adjustable arms *n* and *q* are preferable.

Having thus fully described my improvements, what I claim as my invention, and desire to have secured to me by Letters Patent, is—

An apparatus for grinding scissors and other blades arranged with an adjustable slotted bar, *b*, adjustable curved arms *n* and *q* or stationary single arm *t*, gauge piece *s*, bar *d*, standards *e* and *e'*, in combination with a sewing-machine or other frame, *a a a*, and grinding-wheel *g*, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RUSSELL S. MORSE.

Witnesses:

CARROLL D. WRIGHT,
JESSE T. WHEELER.