

J. GARLAND.
FILE-BLANK HOLDER FOR GRINDING.
No. 171,277. Patented Dec. 21, 1875.

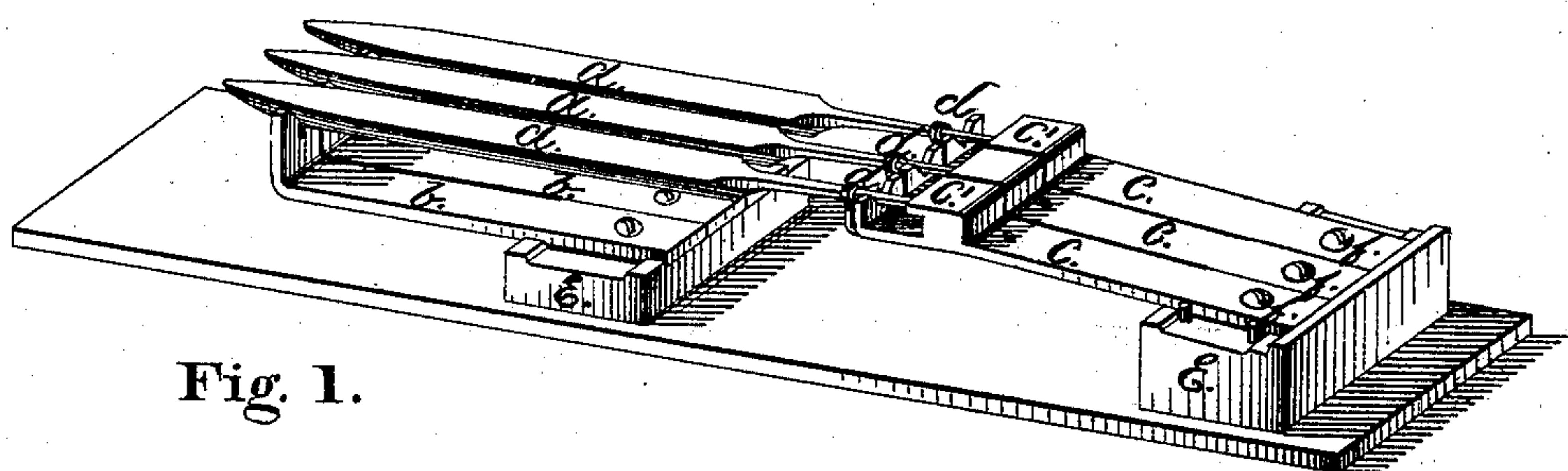


Fig. 1.

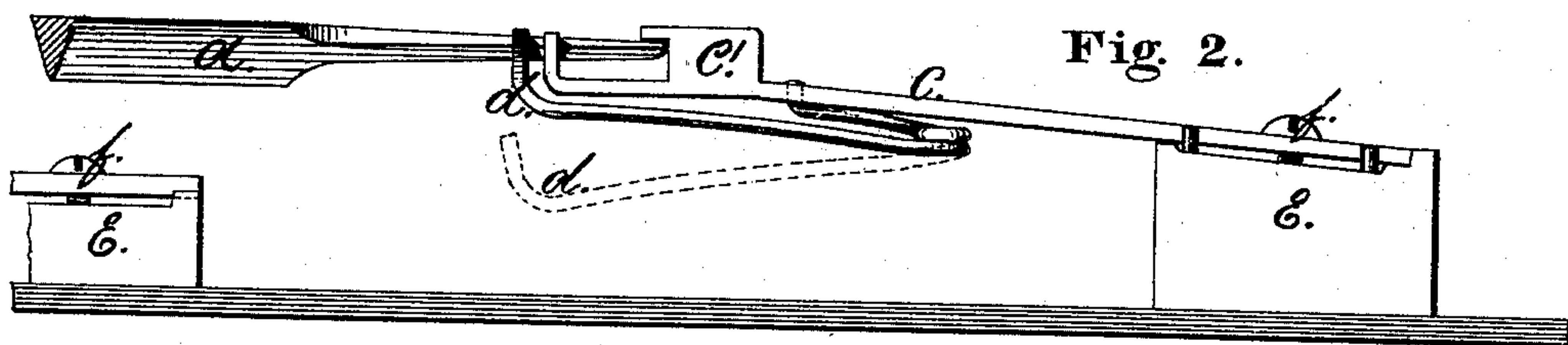


Fig. 2.

WITNESSES.

J. A. Miller
L. P. Langworthy

INVENTOR.

James Garland
by Joseph A. Miller
Attorney

UNITED STATES PATENT OFFICE

JAMES GARLAND, OF CENTRAL FALLS, RHODE ISLAND.

IMPROVEMENT IN FILE-BLANK HOLDERS FOR GRINDING.

Specification forming part of Letters Patent No. **171,277**, dated December 21, 1875; application filed November 6, 1875.

To all whom it may concern:

Be it known that I, JAMES GARLAND, of Central Falls, in the county of Providence, State of Rhode Island, have invented certain new and useful Improvements in File-Blank Holders for Grinding; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification:

This invention has reference to a class of tools or apparatus used for holding a number of file-blanks while the same are operated upon by a grindstone or other grinding device; and consists, first, in the peculiar arrangement of springs, by which each file-blank is held against the grinding-surface, with a given pressure independent of all the other blanks; second, in the novel arrangement by which the springs can be adjusted, so as to exert the pressure required and place the different file-blanks on an even line; third, in the novel manner in which the shank of the file-blank is secured, which, while it firmly holds the file-blank, allows the same to be readily turned over, and also holds the same firmly to resist the thrust of the grinder.

Figure 1 is a perspective view of my improved file-blank holder. Fig. 2 is an enlarged side view of a portion of the same.

Similar letters of reference indicate corresponding parts.

In the drawings, *a a a* represent three saw-file blanks. Any other kind of file-blanks and any number required may, however, be secured in a holder in all essential respects like the one represented in the drawings. *b b* are steel springs, provided with suitable recesses at the turned-up end to receive the end of the file-blank, and hold the same firmly in line, and still allow the file-blank to rock and freely adjust itself to the surface of the grinder. *c c c* are steel springs, in the turned-up ends of which the shank of the file-blank rests, allowing the blank to rock freely and adjust itself so as to bring the face of the same fairly against the grinder. Secured to the springs *c c c* are the abutments *c' c'*, against which the end of the file-blank rests, so that the resistance against the action of the grinder can not displace the file-blank. *d d d* are the

holder-springs, secured to the springs *c c c* and provided with a hook or eye, through which the shank of the file-blank is passed. These springs *d d d* secure the file-blanks in their proper position and allow the workmen to freely handle the whole without disturbing the position of any of the file-blanks. *E E* are the bolsters, to which the springs *b b* and *c c* are secured by the screws *f f*. These bolsters are arranged so that the springs rest on two edges of the bolster, but not in the middle. The springs may, therefore, be adjusted by the screws *f f*, which, by pressing on the springs on the center of the bolster, raise the ends of the springs where the file-blank is supported.

In the drawings three file-blanks are shown supported by the holder; but, in practice, a holder for a greater number is used.

The operation of the file-blank holder is as follows: The holder, as shown and described, is placed in a vertical or nearly vertical position. A boy now takes the files, and, placing the point of the shank in the hook or eye of the spring *d*, draws this forward, and then pushes the point of the shank against the abutment *c'*. At the same time he places the upper end of the file-blank into the recess on the turned-up end of the spring *b*. The file-blanks are now held sufficiently firm by the springs *d d* to be handled and placed against the grindstone or other grinding device without being displaced.

The file-blanks can adjust themselves freely to the surface of the grinder. Being free to rock, and supported at each end by a separate spring, they will adjust themselves to the surface of the grinder, as any excess of pressure will cause the spring or springs to yield. When, in place of supporting the file-blanks on springs, each end yielding independent of the other, and each file-blank independent of the other, the file-blanks are bedded in some elastic material, such as india-rubber, the pressure on one file-blank in excess of the others will cause the first to yield, but not as in my holder, for any excess of pressure on such material causes the same to yield in one direction, while at all other points the material is raised. If a number of file-blanks are supported on a rubber bed, excessive pressure on one will raise the others.

In the present file-blank holder each file-blank can freely accommodate itself to the surface of the grinder both by rocking on its supports and by the yielding of the springs at either end, while the springs can be adjusted so that the pressure against the grinding-surface will be alike on all the file-blanks in the holder.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination of the spring *d* for holding the file-blank, with an elastic support for

the file-blank, substantially as and for the purpose described.

2. The combination of the springs *b b* and the springs *c c*, with the springs *d d*, substantially as and for the purpose specified.

3. The combination, with the springs *b b* and springs *c c*, of the bolsters *E E*, provided with the screws *f f* and raised bearing-surfaces, as and for the purpose described.

JAMES GARLAND.

Witnesses:

JOSEPH A. MILLER,

HORACE F. HORTON.