No. 48,755. PATENTED JULY 11, 1865.

G. L. WITSIL.

KNIFE POLISHER AND GRINDER.

Fig. 1.

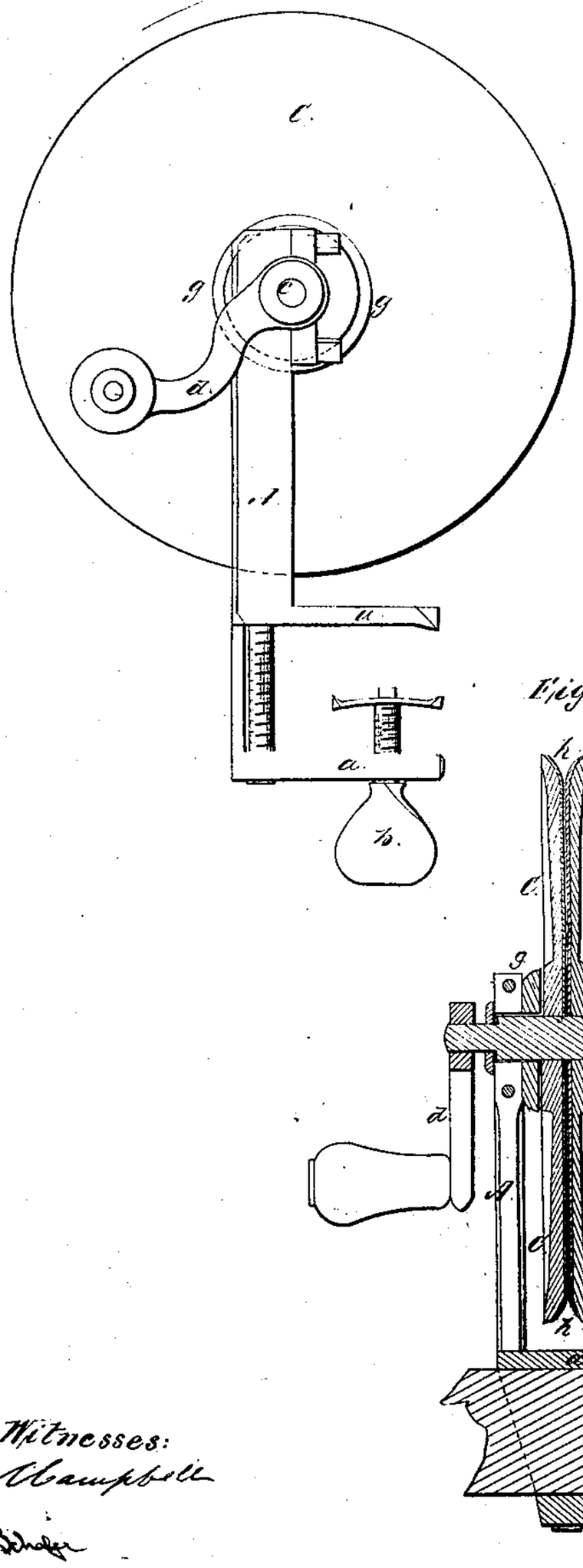

Fig. 2.

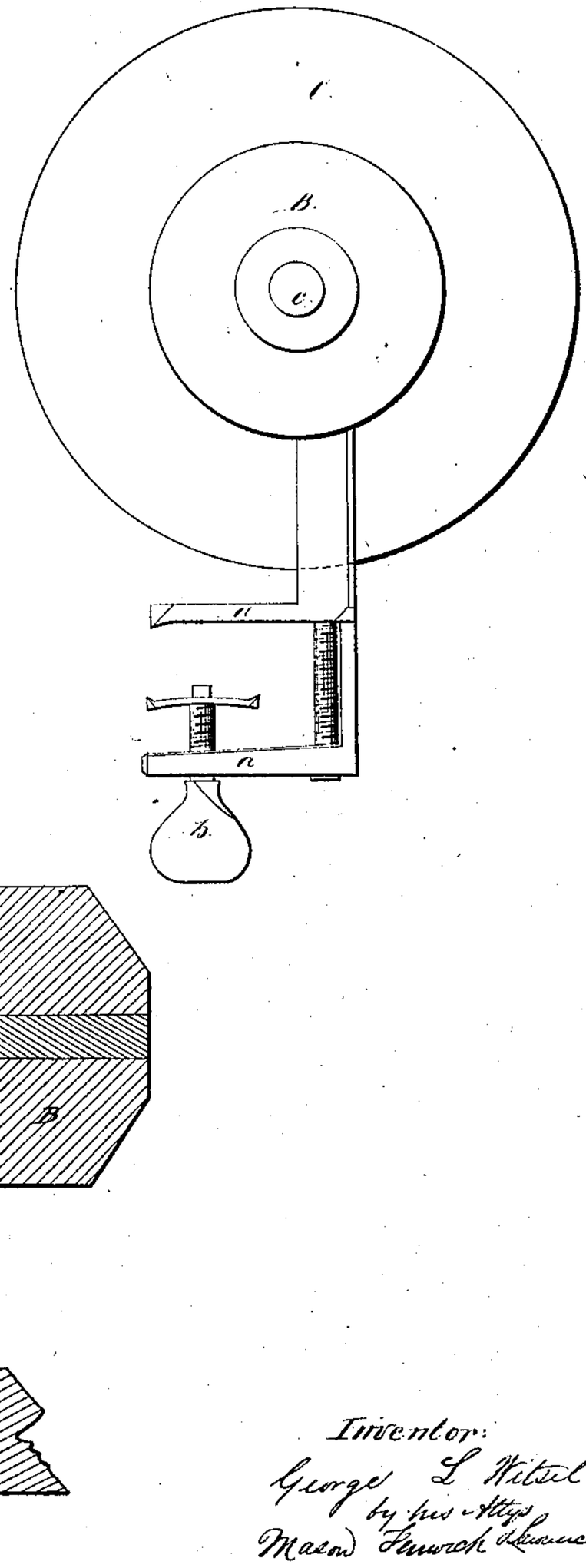

Fig. 3.

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GEORGE L. WITSIL, OF PHILADELPHIA, PENNSYLVANIA.

KNIFE POLISHER AND GRINDER.

Specification forming part of Letters Patent No. **48,755**, dated July 11, 1865.

To all whom it may concern:

Be it known that I, GEORGE L. WITSIL, of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a Combined Knife Polisher and Grinder; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of one side of the polisher and grinder. Fig. 2 is an elevation of the opposite side of the machine. Fig. 3 is a vertical central section through the machine.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in combining in a single portable frame a device for polishing knives and forks, and also a means for sharpening knives, so that by one hand the machine can be operated while the knife is held by the other hand, the machine itself being clamped to a table or other fixed object, as will be hereinafter described.

My invention also consists in constructing the knife-polisher of two circular disks, and so applying these disks upon a turning shaft that they will be forcibly pressed together by a yielding pressure, and caused to accommodate themselves to the tapering surfaces of knives of different thickness, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents a forked frame consisting of two upright standards and two horizontal jaws, *a a*, through the lower one of which latter a clamping-screw, *b*, having a thumb-piece on its end is tapped. By means of the jaws *a a* and clamping-screw *b* the frame A can be quickly secured to a table or other fixed object which may be found convenient. A horizontal, square, or half-round shaft, *c*, has its bearings in the upright standards of frame A, and has affixed to one end a crank-handle, *d*, and to the opposite end a grindstone, B.

Between the standards two circular plates, C C′, are applied on the shaft *c*, so that both disks will turn with it, but allowed to have end play. Between the hubs of these disks or circular plates and the supporting-standards A, I apply on the shaft *c* rubber or other suitable springs, *g g*, for the purpose of pressing the polishing-surfaces of the disks together with an elastic or yielding pressure.

If desirable, one of the disks, C, may be secured rigidly on its shaft, and the other disk allowed to yield; but I prefer to allow both disks to yield or separate from each other when the blade of a knife is introduced between them.

As a square shaft (*c*) would have to be turned round at its bearings upon frame A, and as it is desirable to construct these machines so that they can be afforded at a small cost, I make a half-round shaft answer the purpose. The disks or plates C C′ are slightly dished, as shown at *h h*, Fig. 3, for the purpose of allowing a space at their circumference for the free entrance of the knife-blades, and also for polishing the shoulders of the blades.

If desirable, the disks may be allowed to have a slight wabbling movement on their shafts controlled by the springs *g g*, for the purpose of allowing these disks the better to accommodate themselves to the tapering blades of knives or to the prongs of forks. A slight looseness of the disks will admit of this feature.

The disks C C′ may be made of cast or wrought metal, coated or otherwise provided with emery or other suitable substance on their inside surfaces, and for sharpening the knives a common sharpening-stone may be used, having its edge beveled as represented in Figs. 2 and 3. An emery-wheel or a composition containing emery or other suitable substances may be used for the grinding or sharpening of the knives.

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

1. The arrangement and construction of the frame A *a* with the rubber springs *g g*, disks C C′ *h*, and shaft *c*, substantially in the manner described and represented.

2. The arrangement of a bevel-faced grindstone, B, with the several parts named in the first claim, as herein described.

GEO. L. WITSIL.

Witnesses:

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