E. W. WATSON.

DRILL SHARPENER.

No. 75,084. Patented Mar. 3, 1868.

Fig: No 2.

Sectional view.

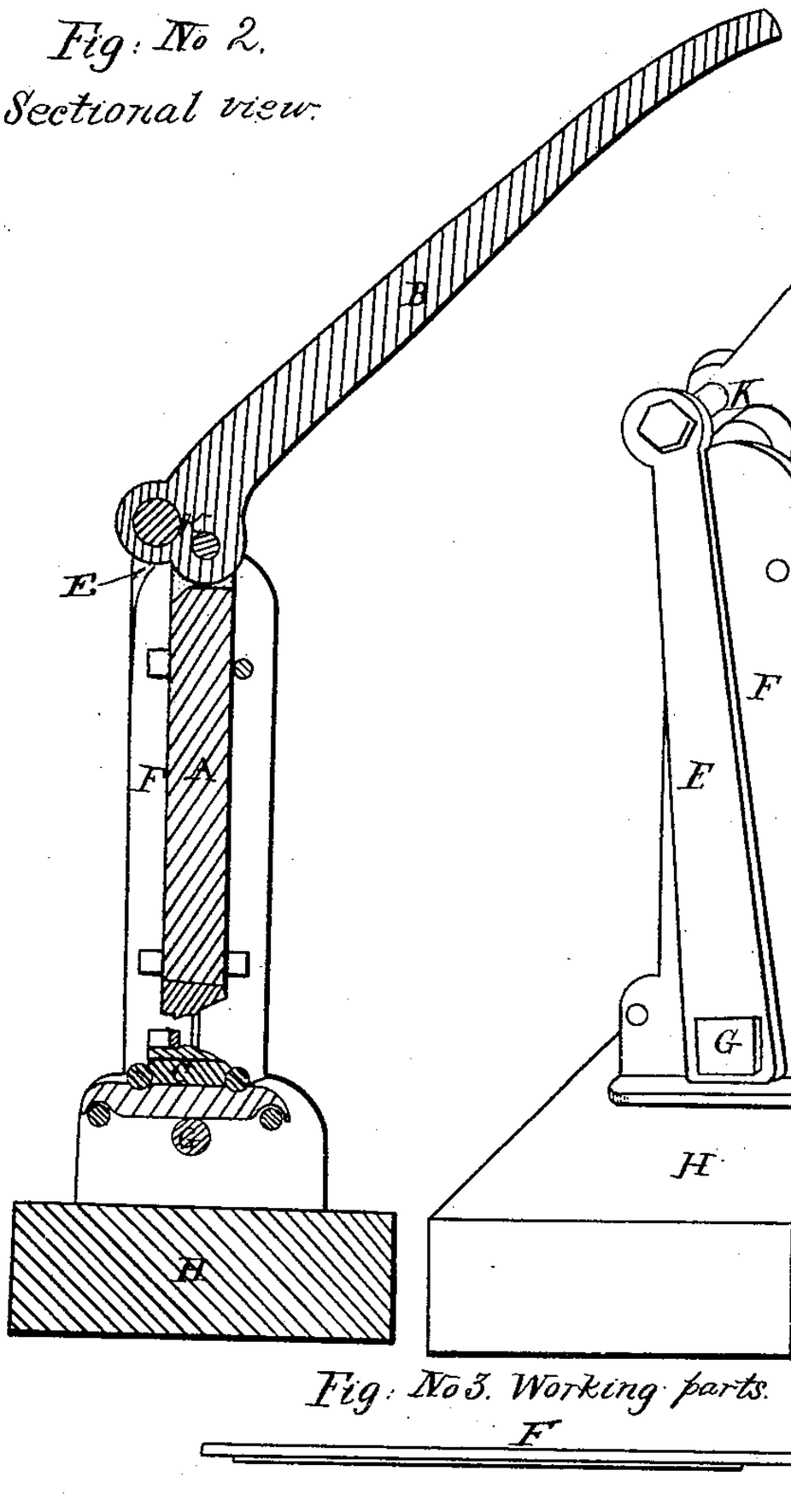


Fig: No 1.

Isometrical view.

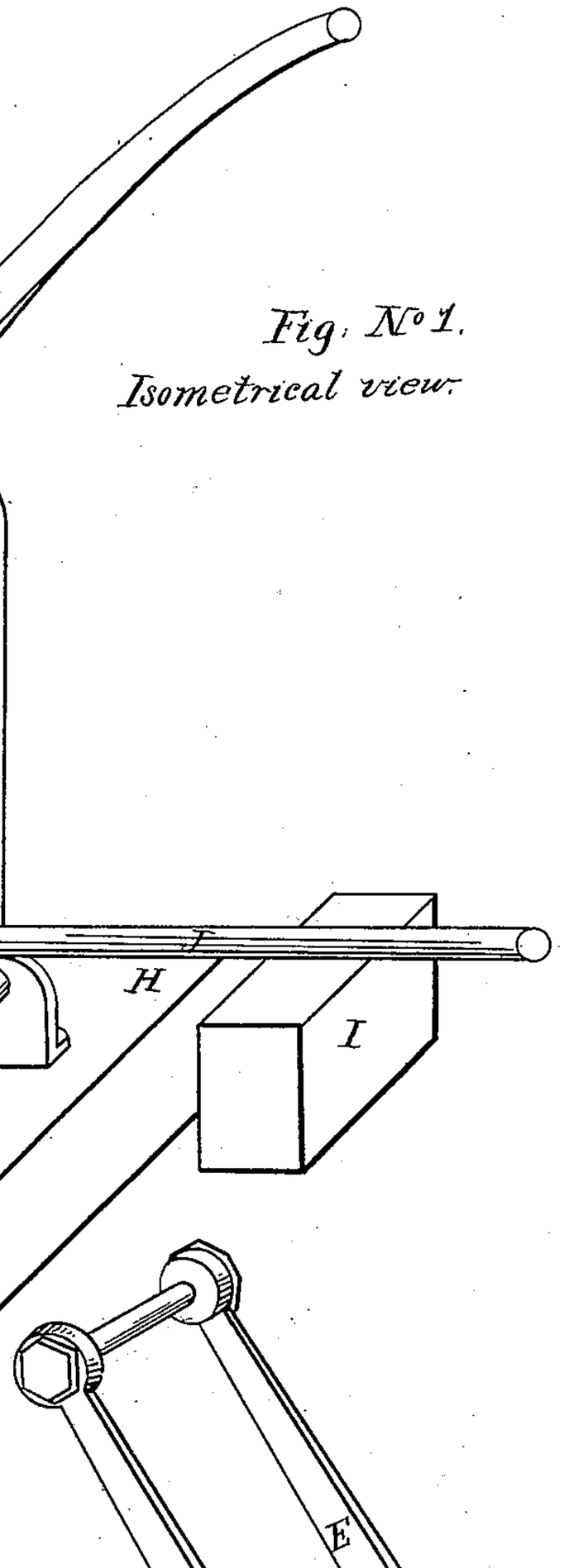
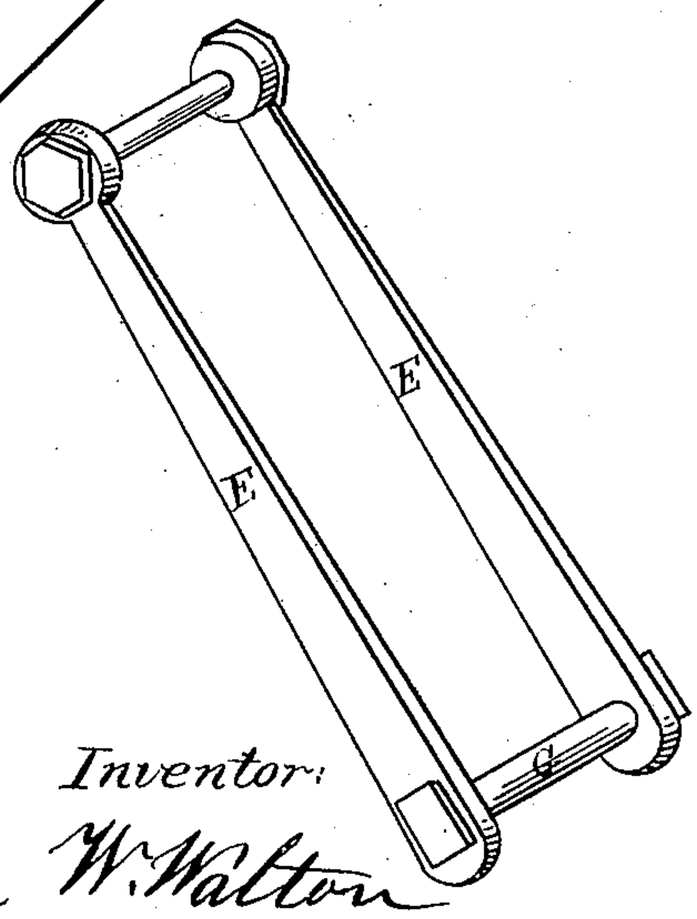
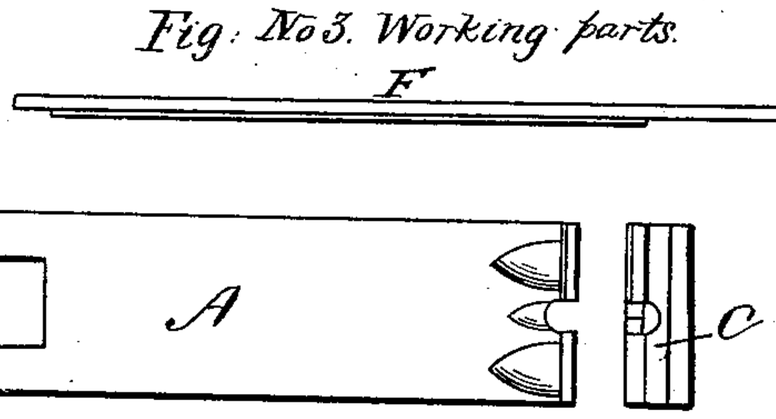


Fig: No 3. Working parts.





Witnesses:

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ELISHA W. WALTON, OF DRYTOWN, ASSIGNOR TO JOSEPH H. ATKINSON, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 75,084, *dated March* 3, 1868.

IMPROVED DRILL-SHARPENER.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, ELISHA W. WALTON, have made a new and useful Invention in Drill-Sharpeners, of which the following, together with the accompanying drawings, is a full and clear description.

Figure 1 represents the sharpener ready for use.

The swage A is worked by the lever B, and is brought down on the die C, which has the form or shape desired for the drill. In the face or cutting part of the swage A is also a die of the desired form. In this die is a groove, L, in which the drill is placed edgewise to dress off the edge in case the drill is badly broken before it is placed in the dies for sharpening. Under the die C runs a bolt, D, that passes through the stirrup E, that passes up on the outside of the guide-frame F, in which the swage works. Through the top of the stirrup E passes a bolt, G, that fastens the lever B to the stirrup. The lower end of the lever is in an eccentric form, and has two holes through it. Through one passes a bolt, attaching the lever to the stirrup; the other secures it by a bolt to the swage, so when the lever is operated it gives all the force to the lever and power of a knuckle-joint, thus producing a machine of capacity and force to sharpen drills suitable for mining purposes, or operating in rock for wedging or blasting.

Figure 2 is a sectional view.

Figure 3, working parts.

A, swage; B, lever; C, die; D, bolt; E, stirrup; F, guide-frame; G, bolt; H, base-block; I, rest-block; J, drill; K, eccentric; L, groove in die.

Claim.

I claim the combination of the swage, frame, and die, in combination with a stirrup-lever and an eccentric, for the purposes specified, all constructed and arranged substantially as described and shown.

San Francisco, August, 1867.

ELISHA W. WALTON

Witnesses:

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