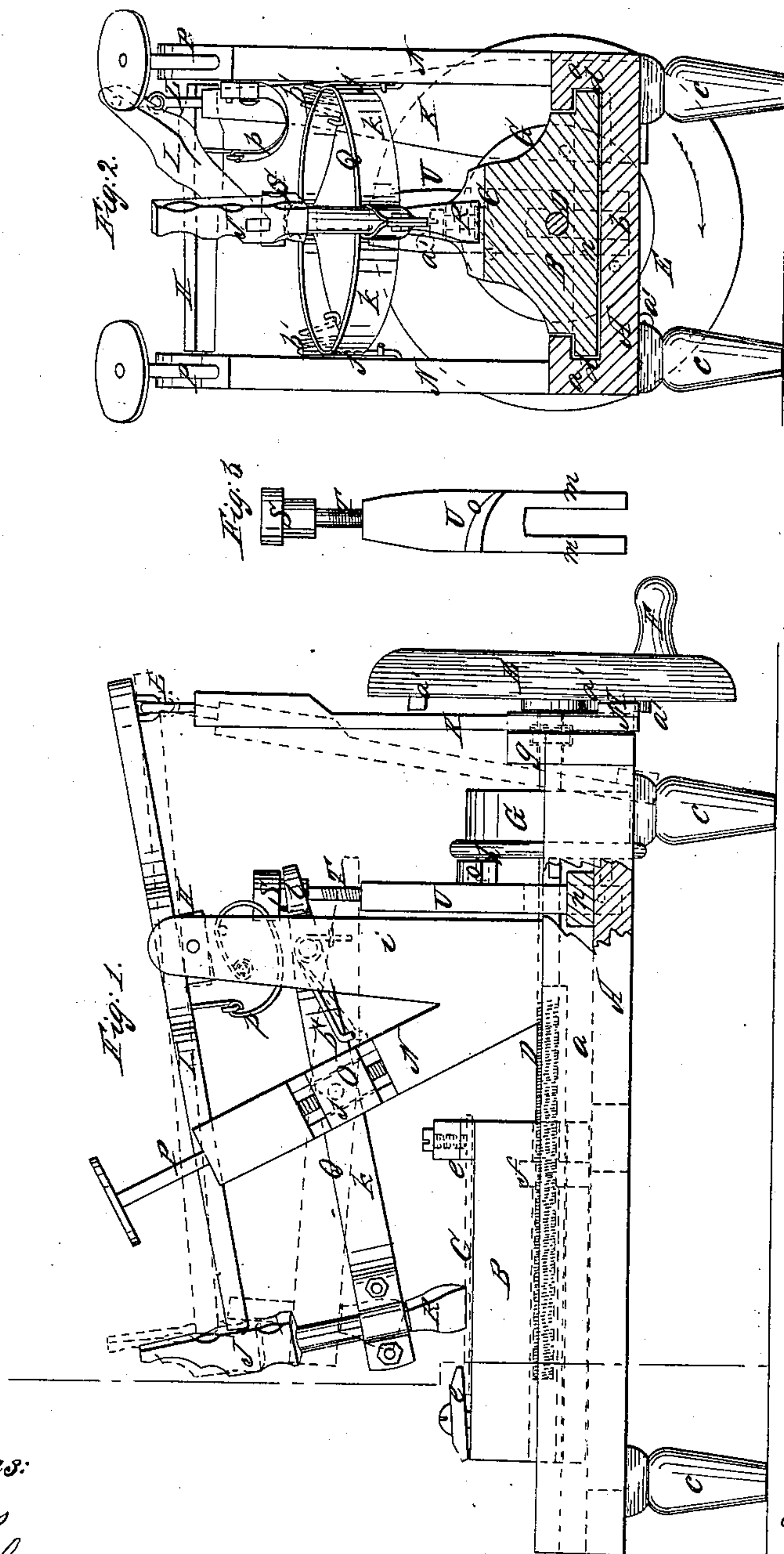


S. Hoke,
Cutting Files

N^o 37,398.

Patented Jan. 13, 1863.



Witnesses:
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UNITED STATES PATENT OFFICE.

SETH HOKE, OF UNION CITY, INDIANA.

IMPROVEMENT IN MACHINES FOR CUTTING FILES.

Specification forming part of Letters Patent No. 37,398, dated January 13, 1863.

To all whom it may concern:

Be it known that I, SETH HOKE, of Union City, in the county of Randolph and State of Indiana, have invented a new and Improved Machine for Cutting Files; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a transverse vertical section of the same, taken in the line *x x*, Fig. 1; Fig. 3, a detached view of a part pertaining to the same.

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

This invention consists in the employment or use of a cutter and hammer arranged to operate in connection with a bed on which the file-blank is placed in such a manner that all the parts will be operated by the turning of a wheel or crank, the blank being fed to the cutter and the cutter and hammer actuated each at the proper time to perform perfect work, the several parts being also so arranged that they may be thrown out of gear when necessary in order to admit of the bed on which the blanks are placed being gighed back when one side of a file is cut in order to cut another side or to commence operation on a new file.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the frame of the machine, which is composed of two parallel bars, *a a*, connected at their ends by cross-bars *b*. This frame A is supported at a suitable height by legs *c*. The bars *a a* have grooves *d* made longitudinally in their inner surfaces to receive the sides of a bed, B, on which the file-blank C is secured longitudinally by means of clamps or dogs *e e*. The bed B is allowed to work or move freely between the bars *a a*, and it is operated by a screw, D, which works through a nut, *f*, fitted in the bed, the screw being between the bars *a a*, parallel therewith, and having a bearing, *g*, on the front cross-bar, *b*, of the frame A. On the front or outer end of the screw D there is placed a wheel, E, having a handle, F, attached to it, and three pins, *a'*, projecting from its inner side at equal distances apart. On the screw

D there is also placed a wheel, G, having three pins, *h*, projecting from its inner or front side at equal distances apart; and *i i* are two uprights, which are attached, one to each bar *a* of the frame A. Between the upper parts of the uprights *i i* there is fitted a rock-shaft, H, to which a hammer-handle, I, is attached. The hammer J is secured to one end of the handle I, and the opposite end has a pendent bar, K, suspended to it by a hook and staple or universal joint, L. The bar K has a ledge or shoulder, M, at its outer side, the use of which will be presently shown.

N N are two oblique or inclined bars, which are attached to the lower parts of the uprights *i i*. In each of these inclined bars N there is fitted a slide, O, which is adjusted by a screw, P. The slides O O receive pivots *j*, which secure a frame, Q, to the slides. This frame Q may be composed of two metal bars, *k k*, bent in bow form, and having a cutter, R, secured between their front ends. This cutter has an oblique position relatively with the file-blank C, and the hammer J is directly over the cutter R. The inner ends of the bars *k k* are bent or curved so as to form a socket, *l*, to receive a knob, S, which has a screw, T, attached to it. This screw passes into a bar, U, the lower part of which is formed with two prongs, *m m*, which are fitted in a cross-bar, *n*, of the frame A. The bar U is provided with a horizontal projection, *o*, which extends toward the wheel G, and within the path of the movement of the pins *h* of said wheel. The frame Q also has springs *b'* attached to it, which has a tendency to keep the cutter R down on the file-blank.

To one of the uprights *i* of the frame A there is attached a spring, *p*, which is connected to the hammer-handle I. This spring has a tendency to keep the hammer down on the top of the cutter R.

The operation is as follows: The file-blank C is secured to the upper surface of the bed B, and the latter is moved inward or toward the bar U until the cutter R will be at the small or outer end of the file-blank C. The screw D is then turned from right to left, and the pins *a'* will act consecutively upon or against the ledge or shoulder M of the bar K, and, in connection with the spring *p*, operate the handle I, and consequently the hammer J, and the pins *h* will act against or upon the

projection *o* of the bar *U*, and, in connection with the springs *b'*, actuate the frame *Q*, and consequently the cutter *R*. The bed *B* is fed along outward by the screw *D*, and the blank is cut by the action of the hammer *J* on the top of the cutter *R*. The motion of the hammer may be stopped at any moment by drawing out the bar *K*, so that its ledge *M* will be free from the action of the pins *a'* of the wheel *E*, and the cutter *R* may be raised free from the blank by screwing down the rod or screw *T*. The position of the cutter-frame *Q* may be changed—that is to say, raised or lowered—at any time by turning the screws *P*.

The whole arrangement is extremely simple and efficient, and operates automatically throughout. When one side of a blank is cut, the bar *K* is drawn out, so as not to be acted upon by the wheel *E*, and the cutter and hammer raised and the screw *D* turned from left to right, so as to bring the bed *B* inward to its original position ready for a second operation, the blank *C* being previously turned so

as to expose an uncut surface; or, if all the sides be cut, a new blank adjusted upon the bed.

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

1. The hammer-handle *I*, having the pendent bar *K* attached to it, and provided with the ledge or shoulder *M*, in connection with the frame *Q*, provided with the cutter *R*, and the bar *U*, provided with the projection *o*, the wheels *E G*, provided with the pins *a' h*, the bed *B*, and screw *D*, all arranged substantially as and for the purpose set forth.

2. Pivoting the cutter-frame *Q* in slides *O O* for the purpose of regulating the height of said frame as described, but this I only claim when the frame is used in connection and arranged with the parts herein specified, for the purpose set forth.

Witnesses:

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