(No Model.)

J. F. DE WITT

BOX TRIMMING CUTTER.

No. 258,388. Patented May 23, 1882.

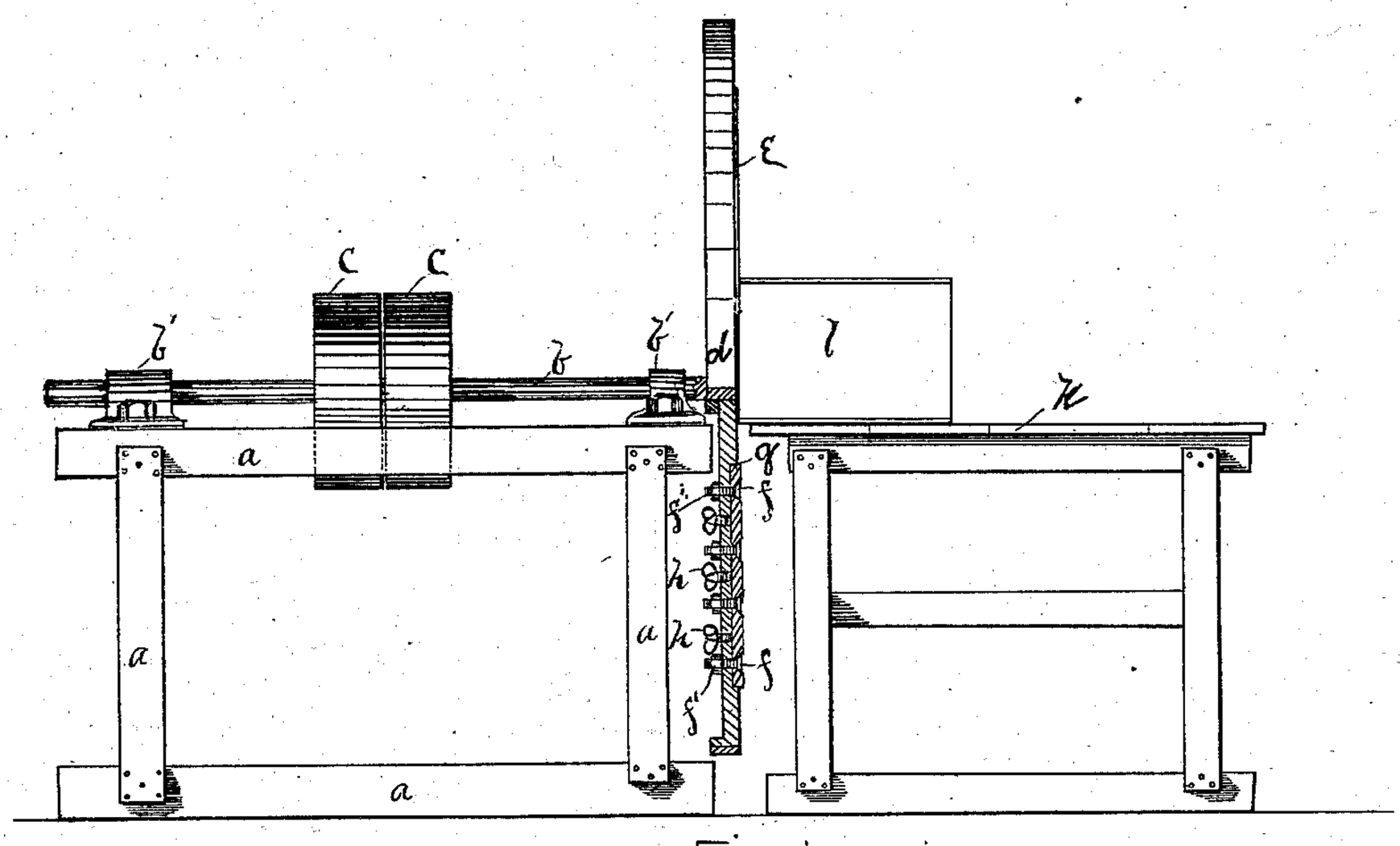

Fig 1

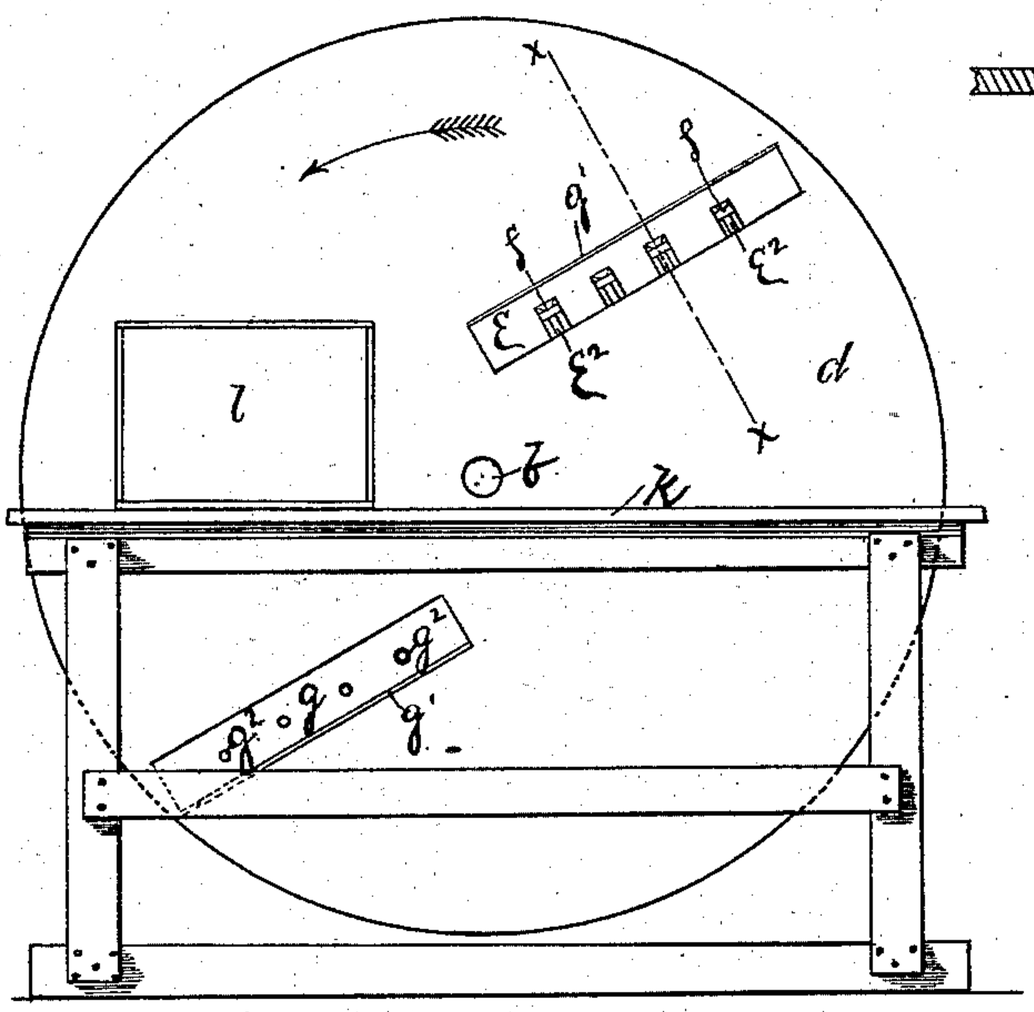

Fig 2

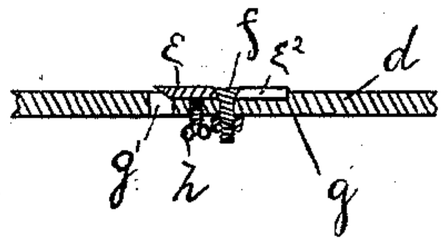

Fig 3

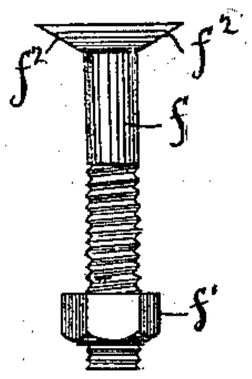

Fig 5

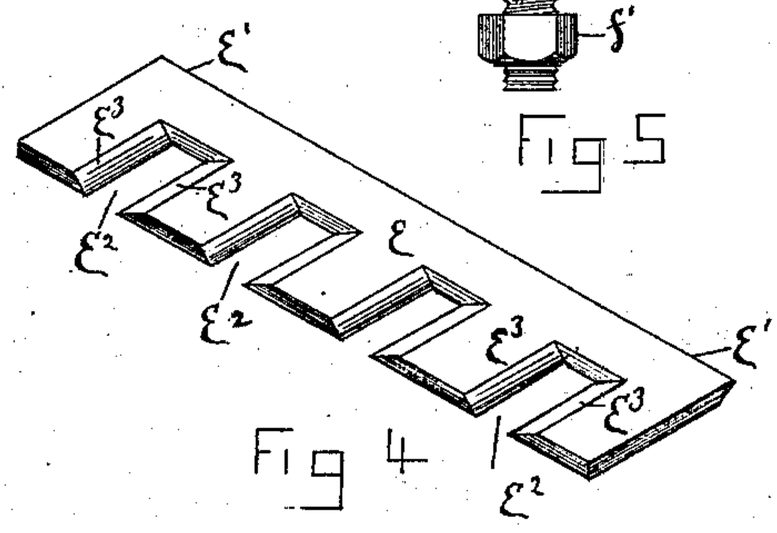

Fig 4

WITNESSES:

J. Stucki

Otto Hoodlick

INVENTOR

Julian F De Witt

BY

W T Miller

ATTORNEY

UNITED STATES PATENT OFFICE.

JULIAN F. DE WITT, OF BUFFALO, NEW YORK.

BOX-TRIMMING CUTTER.

SPECIFICATION forming part of Letters Patent No. 258,388, dated May 23, 1882.

Application filed February 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, JULIAN F. DE WITT, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Box-Trimming Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to machines for trimming off the projecting edges of boxes. Heretofore in that class of machines the projecting edges have been trimmed by knives which have been vertically reciprocated. Knives operated in this manner, when cutting across the grain of the wood, are liable, on reaching the end or corner of the box being trimmed, to sever a large piece of the wood therefrom. Machines have also been constructed having revolving disks with knives passing through such disks at an angle and adjustably secured therein. These machines are adapted only for trimming small pieces of wood.

The object of my invention is to provide a device which will perform a heavier class of work, such as trimming off the projecting edges of boxes in a clean and finished manner and prevent the breaking away of the wood at the edge or corner of the box; and to that end it consists substantially of a disk adapted to be revolved by suitable power, said disk having one or more knives adjustably secured in the face of such disk and substantially parallel to the same, the outer surface of the knife or knives being slightly raised above the surface of such disk. These knives rest in beds or recesses made in the face of the disk, and are capable of adjustment both in the plane of the disk and to and from such plane, as will be hereinafter more fully shown and described.

In the drawings, Figure 1 is a side elevation of the box-trimmer, with a portion of the disk in section. Fig. 2 is a front elevation of the same. Fig. 3 is a section of the disk and one of the knives, taken on the line *x x* of Fig. 2. Fig. 4 is a detached view of the knife, and Fig. 5 is a similar view of one of the adjusting screws and nuts.

Referring to the drawings, *a* is the framework in which the box-trimmer is mounted.

b is the shaft to which the disk is rigidly secured. This shaft revolves in the bearings *b' b'*.

c is a fast and *c'* a loose pulley mounted upon the shaft *b*.

d is a disk, which is vertically mounted upon and revolves with the shaft *b* when power is applied to the fast pulley *c*.

e is the knife, having the chisel cutting-edge *e'* and the slots e^2, two or more. These slots extend part way across the knife and have their sides beveled, as shown at e^3 in Fig. 4. The knife, as shown in Fig. 1, has its outer surface raised slightly above the surface of the disk *d*.

f is an adjusting-screw, and *f'* an adjusting-nut. The head of the screw *f* has the beveled sides f^2 f^2, which rest against the beveled sides e^3 of the knife-slots e^2 when the knife is secured to the disk.

g is the recess in the disk *d*, in which the knife *e* rests and is adjusted, and *g'* is a slot extending through the disk at the end of the recess *g*, in which the cutting-edge of the knife is located and through which the waste material passes.

g^2 are screw-holes in the disk, through which the adjusting-screws *f* pass.

h are thumb-screws for adjusting the cutting-edge of the knife to and from the surface of the disk.

k is a stand or table upon which the box rests while being trimmed.

To adjust the knife *e* as it is worn away in sharpening it is only necessary to loosen the nuts *f'*, when the knife can be moved forward in the plane of the disk any required distance, and to increase or lessen the thickness of the cut the cutting-edge of the knife is moved the proper distance by adjusting the thumb-screws *h*.

The operation of the box-trimmer is as follows: The disk, with its knives properly adjusted thereon, is set in rapid motion in the direction of the arrow seen in Fig. 2. The box to be trimmed (shown at *l* in Figs. 1 and 2) is placed upon the stand or table *k* and pushed by the operator against the rapidly-revolving disk. The peculiar position of the knives with respect to the diameter of the disk enables the operator to obtain a shearing cut, by which the trimming is done in a complete and effective manner, and the knives, being in a position substantially parallel to the plane of the

disk, are capable of doing heavy work and are less liable to break or wear away than are those arranged as hereinbefore mentioned. Two of these disks might be arranged close together and revolved in opposite directions, thus enabling the operator to trim two sides of the box without being obliged to turn the same.

I claim—

A box-trimmer consisting of the disk *d*, adapted to operate by suitable power, and provided with the recesses *g* and slots *g'*, the knives *e*, provided with the slots e^2, having beveled sides e^3, such knives being adapted by means of adjusting-screws *f* and *h* to be adjusted both in the plane of the disk and to and from such plane in the manner shown, the whole being combined and operating substantially as shown and described.

JULIAN F. DE WITT.

Witnesses:

OTTO HODDICK,

W. T. MILLER.