

(No Model.)

J. KLUENTER.
WOOD WORKING MACHINE.

No. 414,551.

Patented Nov. 5, 1889.

Fig. 1.

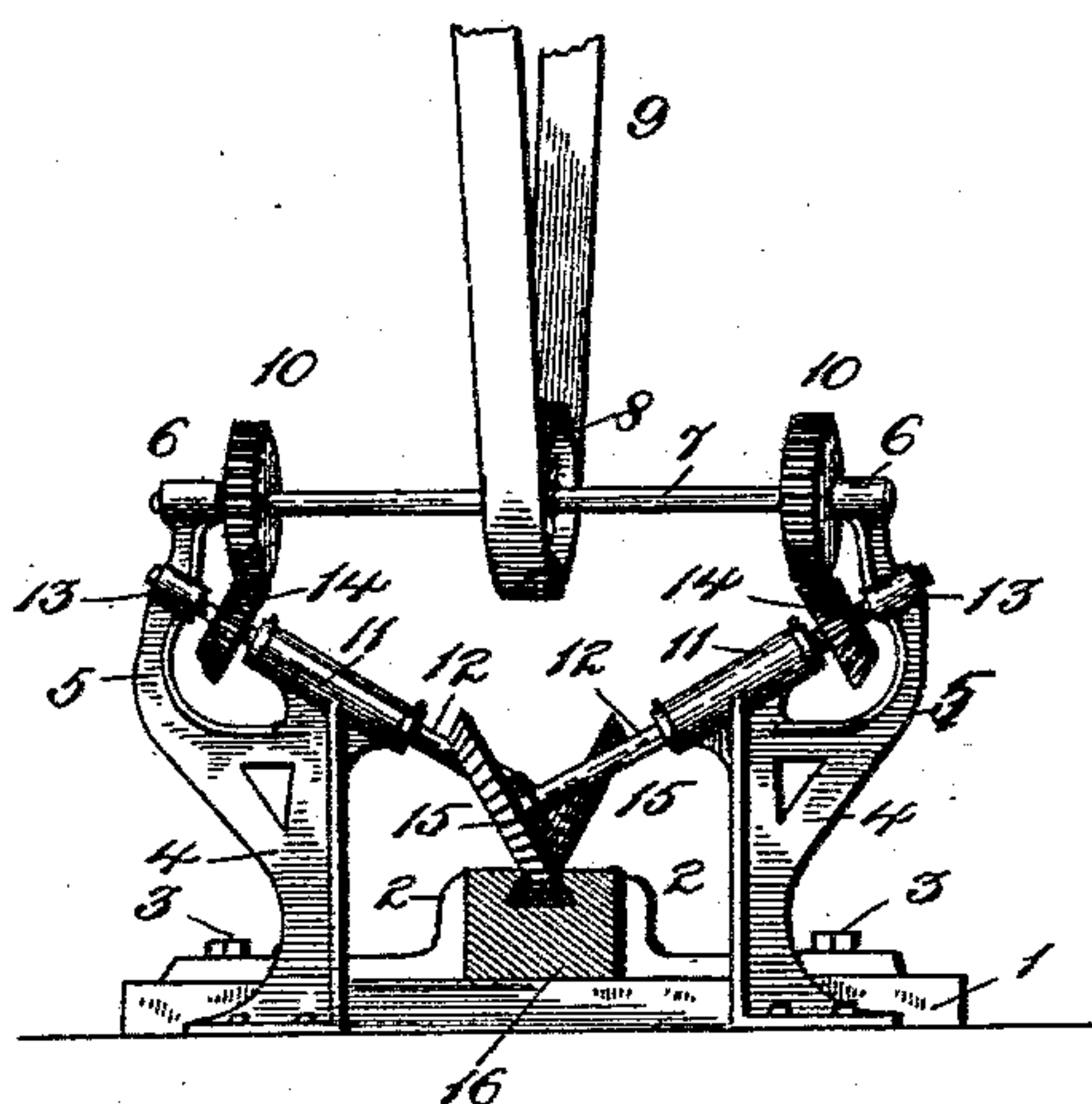


Fig. 2.

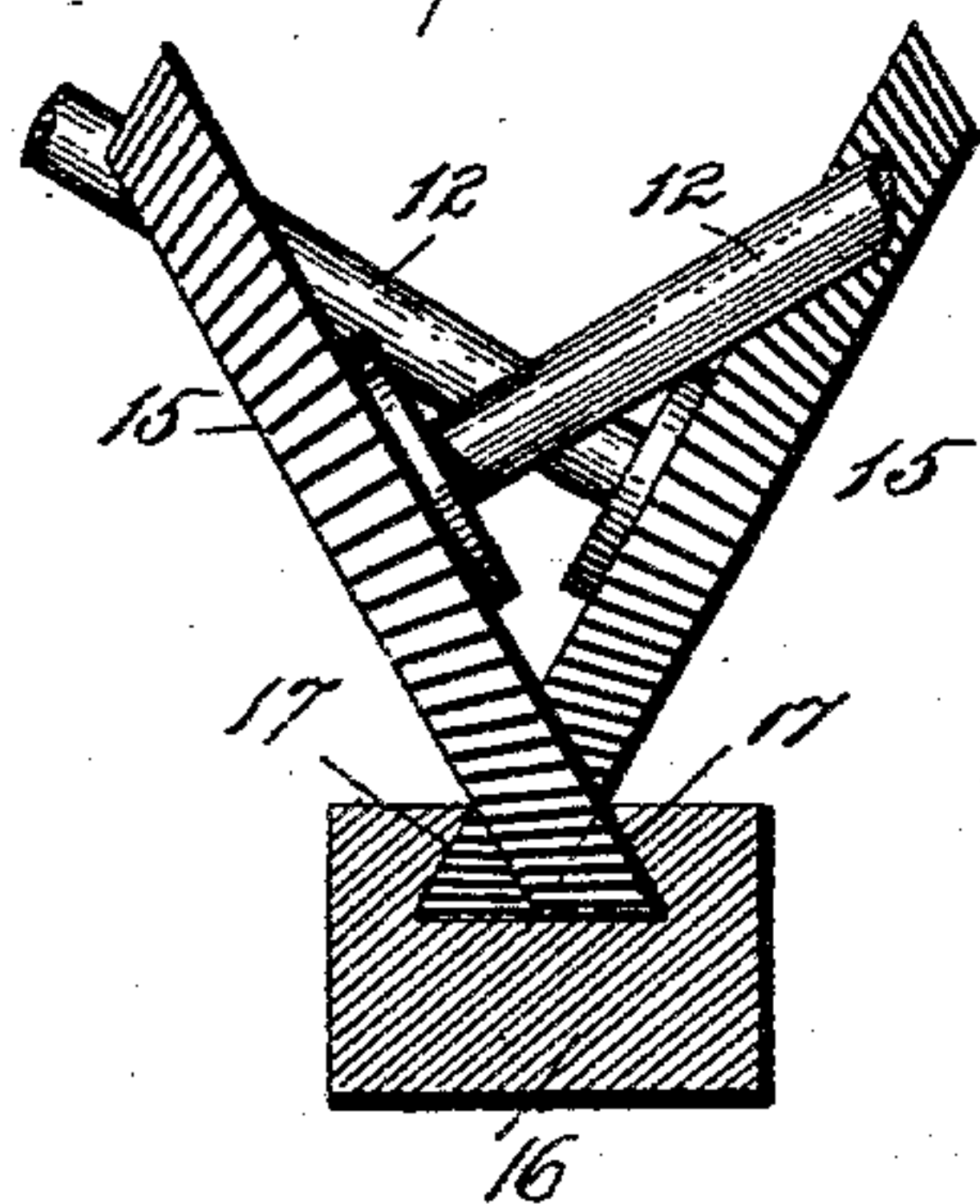
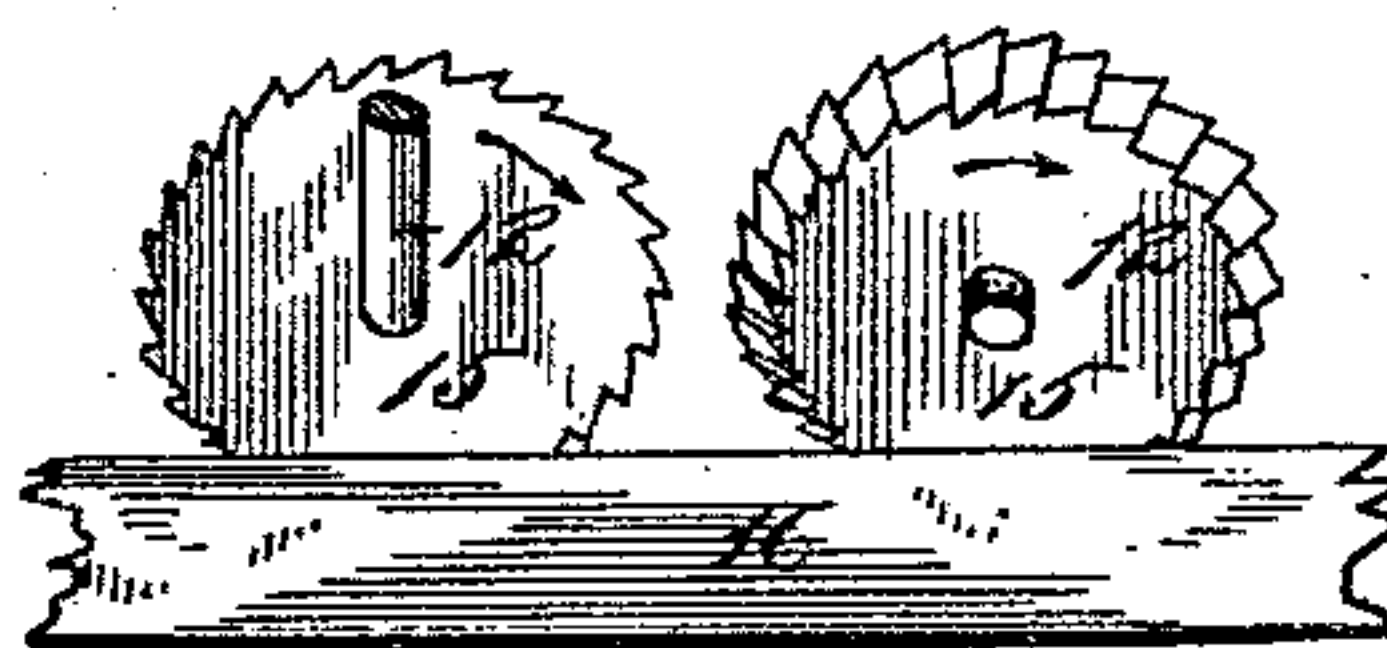


Fig. 3.



Witnesses:

L. C. Miles
W. J. Small

Inventor:

John Klunter.
E. B. Stocking
Attorney.

UNITED STATES PATENT OFFICE.

JOHN KLUENTER, OF ALLENTOWN, PENNSYLVANIA.

WOOD-WORKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 414,551, dated November 5, 1889.

Application filed October 17, 1888. Renewed October 5, 1889. Serial No. 326,072. (No model.)

To all whom it may concern:

Be it known that I, JOHN KLUENTER, a citizen of the United States, residing at Allentown, in the county of Lehigh, State of Pennsylvania, have invented certain new and useful Improvements in Wood-Working Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to wood-working machines of that class known as "channeling," and is especially designed for facilitating the formation of a certain form of channel employed in the sliding sections of window-frames for which United States Patent
15 No. 206,181 was granted me on the 23d day of July, 1878.

Among the principal objects in view are to provide a machine adapted to receive a section or strip of wood and by a single passage
20 through the machine of the strip to form a peculiar-shaped channel for the reception of a similarly-formed connecting device, all as hereinafter described.

25 Referring to the drawings, Figure 1 is an end elevation of a machine constructed in accordance with my invention. Fig. 2 is an enlarged view in end elevation of the channel-cutters, and Fig. 3 is a side elevation of the
30 same.

Like numerals of reference indicate similar parts in all the figures of the drawings.

In the patent above referred to the opposite faces of the sliding sections of the window-
35 screen frame are provided with opposite registering dovetailed grooves adapted each to receive one-half of a metallic substantially X-shaped connecting device which maintains said sections in sliding contact, whereby the
40 screen-frame may be enlarged or extended or the sections slid one upon the other, and thus reduced in width, whereby different-sized window-frames may be fitted.

1 represents the base of the machine, which
45 is provided with opposite longitudinal and adjustable L-shaped guides 2, regulated by setbolts 3, passing through the same and into the base. At that portion of the base 1 where it is desired that the operation of channeling or
50 cutting shall take place I provide diagonally-opposite standards 4, one arranged in rear of

the other, and each provided with upwardly and outwardly extending supplemental bearing-frames 5, terminating in bearing-boxes 6, inclined to such a degree as to be adapted for
55 receiving a cross-shaft 7, the ends of which are mounted in the said boxes. Upon this cross-shaft is a belt-pulley 8, carrying a belt 9, which transmits power to the machine and rotates with the shaft opposite gears 10, 60 mounted near each end of the shaft 7. At the inner corners of the standards 4 are provided thereupon journal-boxes 11. These boxes are in line with their respective standards, and, as before stated, the standards are
65 mounted one in front of the other, or, in other words, out of alignment. Therefore the shafts 12, which are inclined downwardly and mounted in said boxes 11, are out of alignment with each other, the one being arranged
70 in front of the other.

The shafts 12 extend beyond the rear end of the boxes 11 and terminate in supplemental boxes 13, which are formed in the supplemental bearing-arms 5 below the boxes 6, 75 and mounted upon the shaft, intermediate its two bearing-arms 11 and 13, are beveled gears 14, which mesh with the superimposed gear 10, mounted on the shaft 7.

The shafts 12 are of such a length as to pass
80 each other near their lower ends, and are provided at those ends with beveled cutters or channelers 15 of the same size, as clearly shown in Fig. 2.

The operation of my invention is as follows: 85 Motion is imparted to the shaft 7 and its gears 10 through the medium of the belt 9 and the pulley 8, and is transmitted from the gears 10 to the beveled gears 14 and from them to the inclined cutter-shaft 12 and cutters 15. 90 These being set in motion, a strip 16 is inserted between the guides 2, and may be fed automatically or by hand to the cutters, which by reason of their relative arrangement will form a dovetail groove or channel 17, as 95 shown in Figs. 1 and 2. Two of these strips connected by means of the metallic connection described, it will be apparent, are maintained in sliding contact with each other.

Although I have herein described the machine as designed for cutting dovetails in a certain form of window-screen rails, it is ap- 100

parent that the same may be employed for other wood-work—such as, for instance, in tables, sliding blinds, &c.

Having described my invention, what I claim
5 is—

10 In a machine of the class described, the diagonally-opposite standards 4, having the oppositely-inclined parallel bearings 11 and the upwardly-projecting arms 5, having the bearings 13, in line with the bearings 11, and having
the diagonal bearings 6 at their upper ends, in combination with the parallel inclined shafts 12, mounted in the bearings 11 and terminating in the bearings 13, and provided

with the cutters 15 at their inner or lower 15 ends, and with gears 14, arranged intermediate the bearings 11 and 13, and with the diagonal shaft 7, mounted in the bearings 6 and having the gears 10, meshing with the gears 14, and having the pulley 8, substan- 20 tially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN KLUENTER.

Witnesses:

U. S. LITZENBERG,

EDWARD H. RENINGER.