

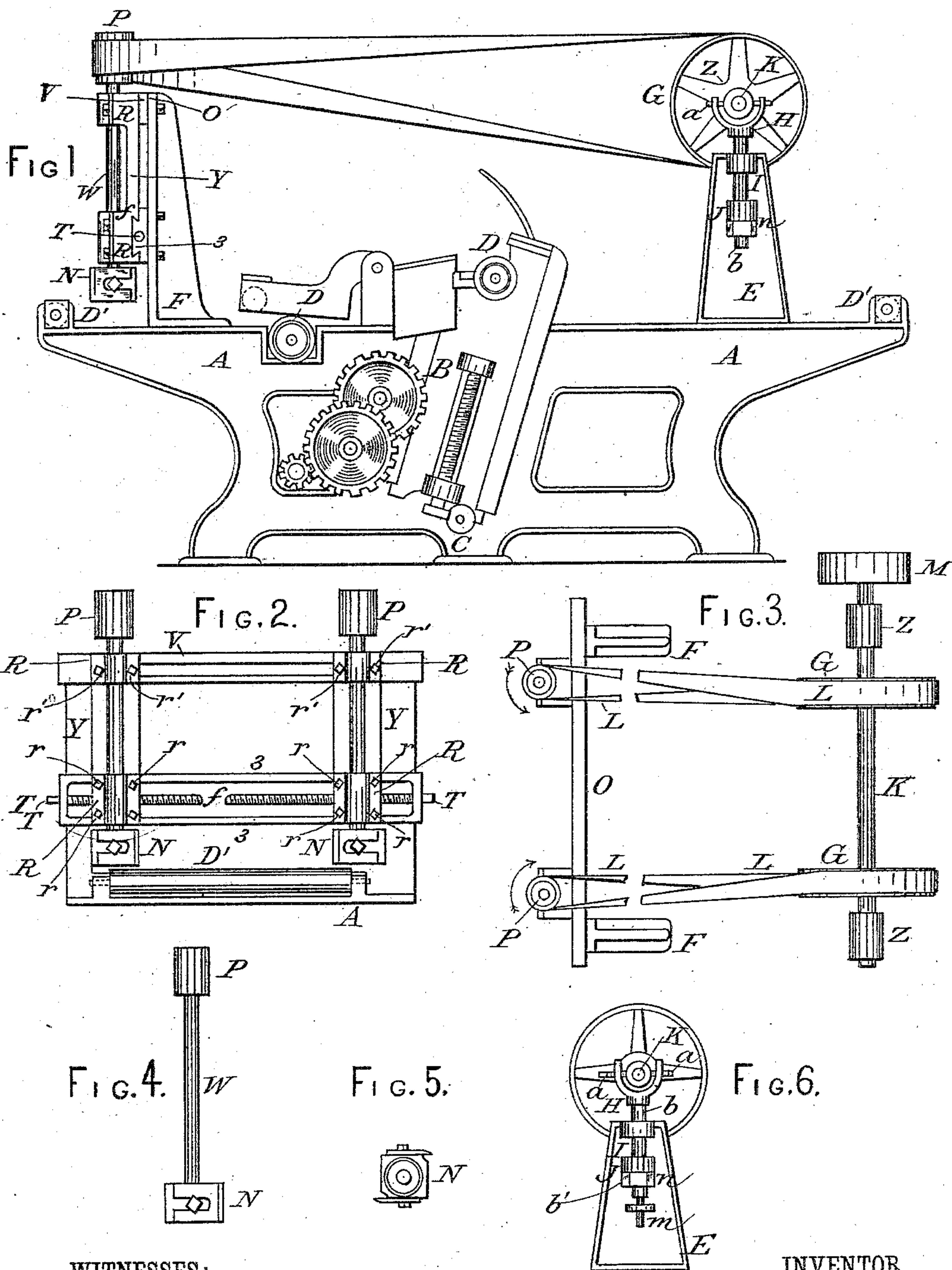
(No Model.)

E. BENJAMIN.

JOINTING ATTACHMENT TO PLANING MACHINES.

No. 295,101.

Patented Mar. 11, 1884.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## JOINTING ATTACHMENT FOR PLANING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 295,101, dated March 11, 1884.

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

*To all whom it may concern:*

Be it known that I, EDWIN BENJAMIN, of South Evanston, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Jointer Attachments for Planers, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure 1 is a side elevation of a planer and jointer embodying my invention; Fig. 2, an end elevation of the jointing attachment in position on the planer; Fig. 3, a broken top view of the driving-gear to the jointer; Fig. 4, a cutter-head to the jointer removed from the machine; Fig. 5, an inverted view of the cutter-head; Fig. 6, an elevation of the drive-wheel attachment to the jointer removed from the planer.

The object of the present invention is to provide suitable mechanism, which, attached to the Benjamin wood-planer or other surfacing-machines, will joint the material as it is being planed. In this regard I do not claim that it is new to joint lumber at the time it is being planed, as that has before been done by machines of different construction; but I claim that the novel construction of the gearing and devices placed above the planer has not before been used.

Among the advantages attained by placing the jointing attachment above the bed of the machine are a less complication of machinery in a body below the bed, where the chips removed from the lumber clog the working parts by their gravity, the distribution of the mechanism in such a manner that the jointing attachment can be put in and out of gear readily when the surfacing is being done, and the construction much simplified, while at the same time the attachment can be removed without taking apart the main frame of the machine. This latter attainment is important, inasmuch as repairs can be made on the jointing attachment while the mechanism of the surfacer is undisturbed and is free to be used. In these regards the attachment is a distinctive feature in its construction, as compared with patents to C. R. Thompkins on June 22, 1875, and to Franks and Spire on December 28, 1875.

The nature of the invention, in brief, consists of an adjustable drive-wheel attachment

and an adjustable jointing device suited to joint all of the ordinary widths and thicknesses of lumber.

A B C D' D represent a well-known Benjamin wood planer or "surfacers," to which my device is attached.

E represents one of the standards which support the drive-shaft K to the jointer. Cast solid to or otherwise affixed to the standards E, each, are two bearings, J I, to support the box-hangers H, screws *b* being formed on the lower ends of the hangers, to receive the adjusting-nuts *n*, by means of which the hangers are raised or lowered as required. The boxes Z are pivoted to the hangers E, as shown at *a*, Figs. 1 and 2, so that when the standards E are attached to the frame A of the planer the boxes Z will adjust themselves to the bearing of the shaft K. This construction, however, is simply a matter of construction rather than invention; but it is a convenient means for adjusting the drive-shaft K and its boxes—that is, either end of the shaft may be raised or lowered, and the boxes will be self-adjusting.

F O F O represent standards which are respectively attached to the sides of the planer-frame A, to support the cutter-heads N, which do the jointing, and also the mechanism which drives them and adjusts them to joint different widths of stuff. A bar, V, is made to connect the top portions of the standards F O, so as to hold the parts, respectively, in position and prevent vibration, also to provide a suitable guide for the upper ends of the box-standards Y as they are moved in or out. That this may be done, the bolts *v'*, which hold the standards Y to the bar V, pass through the slot, and by loosening the nuts on the bolts the standards may be moved. A lower bar, *f*, is bolted fast to the standards F O, and on its face is formed a dovetail, 3, on which the lower ends of the box-standards Y are fitted to slide in or out, as the case may require. The means for adjusting the box-standards consist of screw-nuts T T, which pass through nuts on the standards Y, and have shoulders butting against the ends of the bar *f* and against its middle part, so that turning the screws to the right will set the standards Y farther apart, and turning them to the left



will set them together. There being two independent screws, the standards Y may be separately adjusted. The shafts W of the cutter-heads N run in the boxes R R on the box-  
5 standard Y, and are driven by belts L L, coming from drive-wheels G G and passing round pulleys P. The cutter-heads N are similar to those in common use, and are placed with reference to the rollers D' D' D D of the planer  
10 so as to joint the edge of the board or stuff during the time it is being faced. The belt from the motive power passes over pulley M. By this means the ordinary surface-planer  
15 jointer without any change in the construction thereof.

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

In a jointing attachment to wood-planing 20 machines, the standards E and F O, attached to the top of the planer-frame, the standards E, to support the drive-shaft K, and the standards F O, to support the jointing devices, consisting in the combination of the cutter-heads 25 supported by adjustable box-standards Y, having sliding bearings in the bars V f, as and for the purpose specified.

EDWIN BENJAMIN.

Witnesses:

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