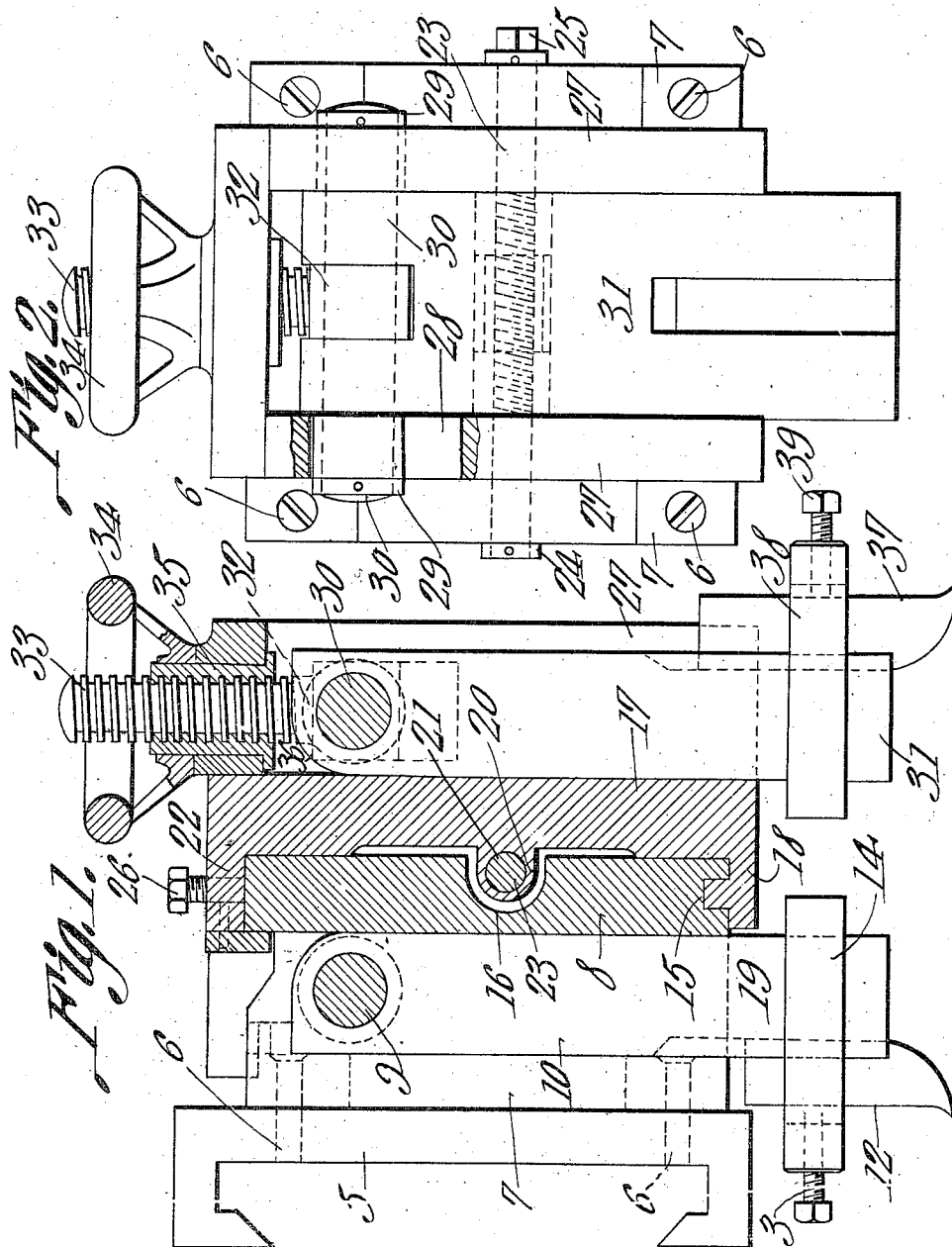


C. WINKLER.
 PLANER HEAD.
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Patented June 13, 1911.



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UNITED STATES PATENT OFFICE.

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PLANER-HEAD.

994,965.

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To all whom it may concern:

Be it known that I, CHRISTIAN WINKLER, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Planer-Head, of which the following is a specification.

It is the object of the present invention to provide an improved construction of planer head and more specifically to provide an improved tool holding means for such a head, the means being so constructed as to support, upon a single head, two planing tools, the cutting edges of the tools being presented in opposite directions and the tools being so supported that when the bed of the planer is moved in one direction, one tool will perform its planing function and when the said bed is moved in the opposite or return direction, the other planer tool will perform its planing function. Thus, the invention provides for the performance, in a planing machine, of the planing operation whether the bed of the machine is moved forwardly or backwardly.

One of the aims of the present invention is to provide, in a planer head embodying holding means for two planing tools or bits, means whereby the said holding means may be adjusted relatively both as regards depth of cut and alinement in the direction of travel of the bed.

With the above and other objects in view, the invention consists in the general construction and arrangement of parts shown in the accompanying drawings, in which,

Figure 1 is a view partly in side elevation and partly in vertical section through a planer head constructed in accordance with the present invention. Fig. 2 is a view in front elevation of the planer head.

In the drawings, the numeral 5 indicates the planer head proper, this planer head being mounted in the frame of the planer above the bed thereof in the ordinary manner. Secured by means of suitable bolts 6 or other similar devices, to the front face of the planer head is a head block indicated by the numeral 7, this block including spaced side portions and a forward connecting portion indicated by the numeral 8 which latter portion is spaced from the forward face of the head block 5 as clearly shown in Fig. 1 of the drawings. A hanger pin 9 is fixedly mounted at its ends in the sides of the head block 7 and pivotally suspended from this

hanger pin 9 is a tool holder indicated by the numeral 10. The pin 9 passes through the upper end of the tool holder 10 and the upper forward edge or corner of this holder 10 is rounded as at 11 so that the holder may have pivotal swinging movement upon the pin 9 in the direction of the planer head 5. It will however be noticed that the forward side of the holder 10 rests flat against the rear face of the connecting portion 8 of the head block so that swinging movement of the tool holder 10 in a forward direction is limited. The tool held by this holder is indicated by the numeral 12 and is of any ordinary or special form and is secured in place by a set screw 13 engaged through the ends of a bail 14 fitted about the lower end of the tool holder 10 and the tool 12 therein.

For a purpose to be presently described, the connecting portion 8 of the head block 7 is formed in its lower edge with a groove 15 and in its forward face, in a line transversely substantially midway between its upper and lower edges, with a groove 16. A horizontal slide having its body indicated by the numeral 17 is formed at its lower edge and projecting from its rear face, with a flange 18 having an upstanding rib 19 fitting slidably in the groove 16 and the rear face of the said body 17 is further formed with a boss 20 located at the middle of the said face and formed with a threaded bore indicated by the numeral 21. This boss 20 projects into the groove 16 and is free to move therein. A flange 22 projects from the said rear face of the body 17 at the upper edge thereof and projects over the upper edge of the connecting portion 8 of the head block 7 and it will be readily understood that by so disposing the horizontal slide upon the head block, it may be adjusted transversely therealong. In order that this adjustment may be readily accomplished, an adjusting screw 23 is held for rotation in the spaced portions of the head block and is threaded through the boss 20. The screw 23 is held against movement longitudinally with respect to the head block through the medium of a suitable collar 24 secured upon each of its ends and one end of the screw is squared as at 25 for the engagement therewith of a wrench or other similar tool by means of which it may be rotated to feed the boss 20 and consequently the body 17 of the horizontal slide, in one direction or the

other transversely along the head block 7. In order to hold the horizontal slide 17 at points of adjustment upon the head block, there is provided a set screw 26 which is
 5 threaded through the flange 22 and bears against the upper edge of the connecting portion 8 of the said head block.

The horizontal slide 17 includes spaced cheek portions which are indicated by the
 10 numeral 27 and each of these cheek portions is formed with a slot indicated by the numeral 28. A slide block 29 is fitted for vertical sliding adjustment in each slot 28 and fixed at its ends in the slide block 29 is a
 15 hanger pin indicated by the numeral 30. The bifurcated upper ends of a tool holder 31 are pivotally connected with the hanger pin 30 and between the furcations of the said holder at its said upper ends there is fitted
 20 a collar 32 fixedly carried at the lower end of a threaded stem 33. A hand wheel 34 is threaded upon this stem 33 and bears against the upper side of the horizontal slide, and the said stem 33 is threaded to a bushing 35
 25 which is fitted through the said upper side of the horizontal slide.

From the foregoing it will be readily understood that by rotating the hand wheel 34, the stem 33 may be adjusted up or down
 30 and that the tool holder 31 will be correspondingly adjusted. It will further be observed from an inspection of the drawings that while the tool holder 31 may swing forwardly upon the hanger pin 30 as a pivot,
 35 its upper rear corner being rounded as at 36, it is held against rearward swinging movement by reason of the fact that it abuts at its rear face against the forward
 40 face of the horizontal slide 17. A tool 37 corresponding to the tool 12 is held by a

bail 38 and set screw 39 upon the tool holder 31 in the same manner as is the tool 12 upon the holder 10 and the cutting edge of the tool 37 is presented in a forward direction
 45 whereas that of the tool 12 is presented in a rearward direction. As a result, when the bed of the planer (not shown) is moving rearwardly, the tool 37 will act upon the work upon the bed whereas when the head
 50 is moving forwardly, the tool 12 will act upon the work upon the bed, the tool 12, in the former instance, riding over the surface being worked and the tool 37, in the latter instance riding over this surface. It will be
 55 readily understood from the foregoing, also, that either of the tools 12 or 37 may be adjusted in its respective holder and that moreover the tool 37 and its holder 31 may be adjusted vertically by rotating the hand wheel
 60 34 in one direction or the other. Also, the tool holder 31 may be adjusted laterally with respect to the tool holder 10 by rotating the adjusting screw 23.

What is claimed is:—

In a machine of the class described, a head
 65 block, a hanger pin mounted in the head block, a tool holder suspended from the hanger pin, a horizontal slide mounted upon the head block for adjustment transversely
 70 thereof, a hanger pin mounted in the horizontal slide, means for adjusting the last mentioned hanger pin vertically, and a tool holder suspended therefrom.

In testimony that I claim the foregoing
 75 as my own, I have hereto affixed my signature in the presence of two witnesses.

CHRISTIAN WINKLER.

Witnesses:

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WILLIAM VIGGERS.