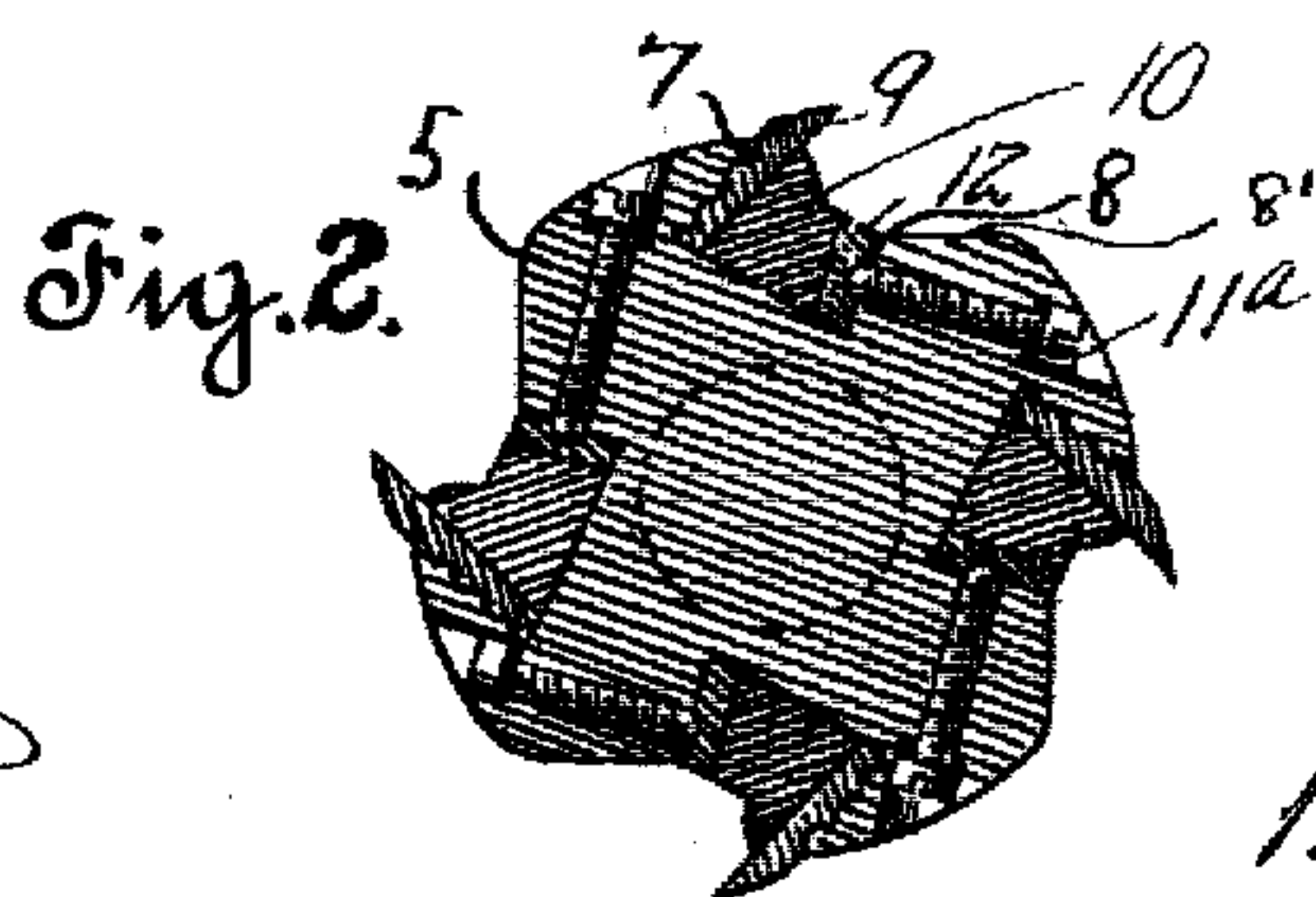
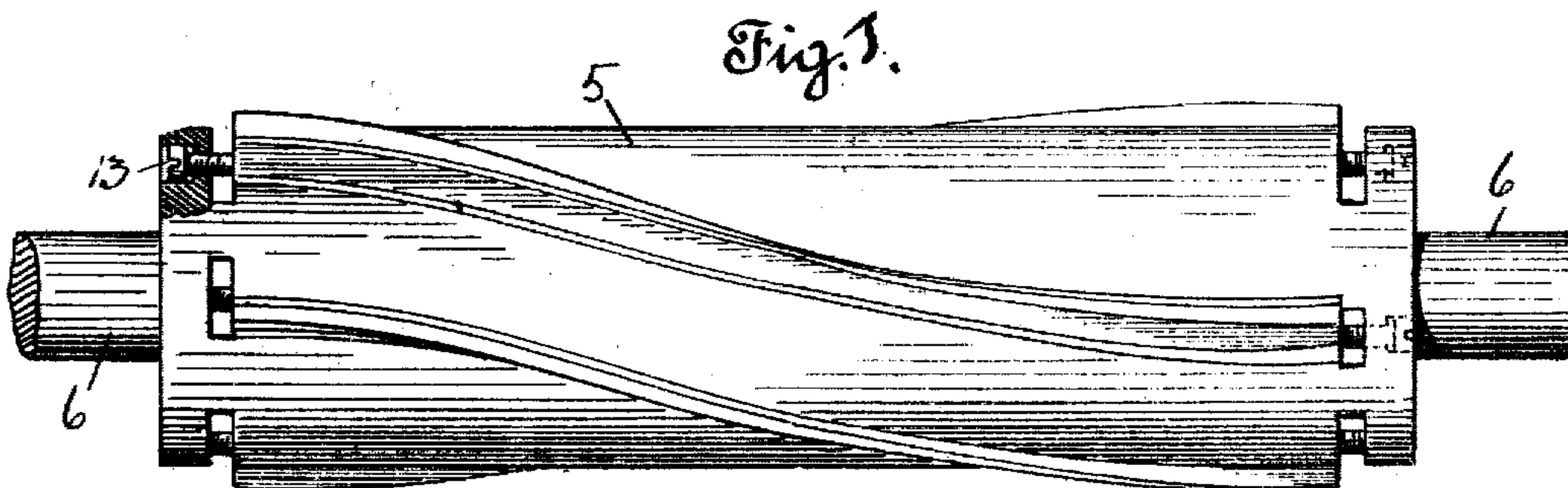


No. 811,768.

PATENTED FEB. 6, 1906.

J. B. FORBES.
PLANER HEAD AND CUTTER.
APPLICATION FILED JULY 1, 1904.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN B. FORBES, OF MILL VALLEY, CALIFORNIA.

PLANER-HEAD AND CUTTER.

No. 811,768.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed July 1, 1904. Serial No. 215,032.

To all whom it may concern:

Be it known that I, JOHN B. FORBES, a citizen of the United States, residing at Mill Valley, in the county of Marin and State of California, have invented certain new and useful Improvements in Planer-Heads and Cutters, of which the following is a specification.

My invention relates to woodworking machinery, and more particularly to planer-heads and cutters.

The object of my invention is to provide a simple rigid construction in which very thin cutter-blades can be used, to furnish it with means for accurately adjusting the cutters and securing them in adjusted positions, to form the head in such a way that wide open throats are provided adjacent to the cutter, making it easily self-clearing and preventing choking and clogging by shavings, and in general to improve the design and construction of such planer-heads in the lines of simplicity, strength, and efficiency.

In the accompanying drawings, Figure 1 is an elevation of a planer-head with spiral cutters. Fig. 2 is a cross-section of Fig. 1.

In the drawings, 5 designates the cutter-head, having projecting shaft portions 6 and which is rotatably journaled and driven in any suitable way. This head has a plurality of recesses, the walls 7 and 8 of which tend to converge outwardly to form a dovetail recess to secure cutters and the securing devices. In these recesses are fitted the thin cutters 9, the distance-pieces 12, and the keys or wedges 10, which fit the converging surfaces of the cutters and the walls 8. The wall 8 includes a tangential portion 8'. The walls 7 are provided with fine corrugations, and the adjacent surfaces of the cutters are formed with similar corrugations. The interengaging corrugations and ribs thus formed assist in locking the cutters rigidly to the planer-head and at the same time afford a long range for very accurate adjustment as such cutters wear. Within reasonable limits, which enable the wedges to get a good bearing on the surfaces of the cutters, the latter can be worn very narrow and still always be capable of being locked in position.

The screws 11 after passing through the solid head in which they are sunk bear against or in the distance-pieces, the latter forming practically one wall of the dovetail recess. With this construction, and as the

holding-screws do not positively enter the wedges themselves, I guard against the possibility of longitudinal displacement in use by stop-screws 13 at both ends, which are threaded through the ends of the cutter-head, as shown in Fig. 1, and bear upon the wedges in opposite directions.

In planers used in woodworking it is a matter of great importance that the planer-head and cutters should be easily cleared and prevented from clogging by accumulating shavings. It will be observed that the distance from the edge of any cutter across the recess to the peripheral arc of the head forms a wide throat and clearance-space from which all debris is immediately discharged.

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

1. A planer-head for woodworking, comprising a cylinder provided with deep peripheral grooves spaced widely apart and having walls of unequal depth, in combination with cutters, a wedge or key in each groove of substantially the depth of one wall, but of less depth than the other, and screw-bolts for securing said wedges passing substantially tangentially from the periphery of the head through the wall of greater depth to press said key against the cutter; all constructed and arranged to provide a wide clearance-space or throat between the cutter and the junction of the deeper wall with the periphery of the head.

2. A planer-head for woodworking, comprising a cylinder, having deep peripheral grooves spaced widely apart and having walls of unequal depth relatively to the periphery of the cylinder, the deeper wall converging outwardly toward the other wall to form a dovetail seat and then extending to the periphery tangentially, in combination with a cutter, a wedge or key in each dovetail seat, and screw-bolts for securing said wedges; all constructed and arranged to provide a wide clearance-space or throat between the cutter and the junction of the angular wall with the periphery of the head.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 9th day of June, 1904.

JOHN B. FORBES.

Witnesses:

F. E. MONTEVERDE,
M. R. SEELY.