

(No Model.)

W. T. WEBB.

COMBINED ECCENTRIC COUNTERBALANCING COLLAR AND SHAPER GUARD.

No. 474,274.

Patented May 3, 1892.

Fig: 1.

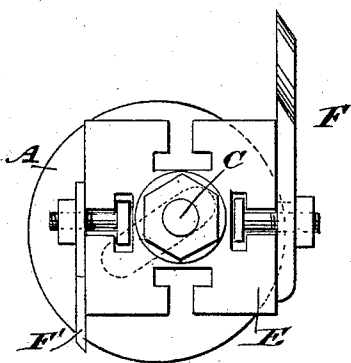


Fig: 2.

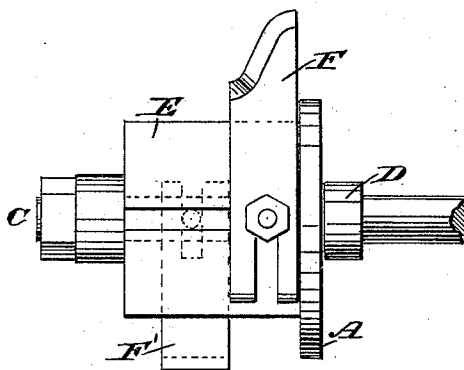
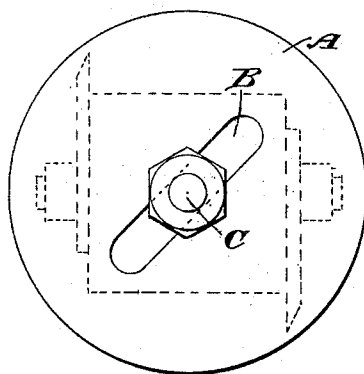


Fig: 3.



WITNESSES:

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WATSON T. WEBB, OF SALT LAKE CITY, UTAH TERRITORY.

COMBINED ECCENTRIC COUNTERBALANCING-COLLAR AND SHAPER-GUARD.

SPECIFICATION forming part of Letters Patent No. 474,274, dated May 3, 1892.

Application filed October 27, 1891. Serial No. 410,043. (No model.)

To all whom it may concern:

Be it known that I, WATSON T. WEBB, of Salt Lake City, in the county of Salt Lake and Territory of Utah, have invented a new and Improved Combined Eccentric Counterbalancing-Collar and Shaper-Guard, of which the following is a full, clear, and exact description.

The invention relates to wood-working machinery; and its object is to provide a new and improved device combining a collar for counterbalancing the cutters on the spindle and a guard to prevent the operator from being injured by the cutters in case the article under treatment breaks.

The invention consists of a washer provided with an elongated slot and adapted to be secured eccentrically on the cutter-spindle next to the head carrying the knives or cutters.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an end elevation of a cutter provided with the improvement. Fig. 2 is a side elevation of the same, and Fig. 3 is an enlarged face view of the improvement.

The combined eccentric counterbalancing-collar and shaper-guard consists of a collar A, provided with an elongated slot B, extending diametrically in the middle of the collar. Through the slot B passes the spindle C, and on one face of the collar abuts a fixed collar D, attached to or forming part of the spindle C. The other face of the collar A abuts on one end of the head E, held in the usual manner on the cutter-spindle C and carrying the several cutters F F', &c. The several cutters F F' on the head E are sometimes one heavier than the other, and as they are secured on opposite sides of the cutter-head the latter is unbalanced. The same is the case if only one knife or cutter is arranged on the head. Now in order to compensate for this discrepancy, the collar A is shifted on the spindle C,

so as to be eccentric with the latter and increase the weight on that side of the head E carrying the lightest or thinnest cutter. Thus, as shown in Figs 1. and 2, the cutter F' is considerably less in weight than the opposite cutter F and cuts but a short distance into the material under treatment, while the other cutter F extends a considerable distance outward and cuts deeply into the material. The collar A is, however, set eccentrically on the spindle C between the head E and the collar D, so as to counterbalance the cutter F by increasing the weight on that side of the head E on which the light cutter F is secured. If necessary, two collars may be used, one on each end of the head.

The collar applied to upright spindle-shaper and variety molding-machines serves both as a counterbalance, as above described, and also when set at the upper end of the head it forms a guard to prevent the operator from being injured in case the article under treatment breaks and the operator's hands move toward the cutters, it being understood that the collar A in such machines is sufficiently larger in diameter to project or cover up the cutter projecting farthest from the center of the spindle C.

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

1. A combined eccentric counterbalancing-collar and shaper-guard, consisting of a washer formed with an elongated slot and adapted to be secured eccentrically on the end of the cutter-head carrying the knives or cutters, substantially as shown and described.

2. In a device of the class described, the combination, with the cutter-spindle, of a head held thereon, cutters attached to opposite sides of the said head, and a collar held eccentrically on the end of the said head, substantially as shown and described.

WATSON T. WEBB.

Witnesses:

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THOS. W. POWELL.