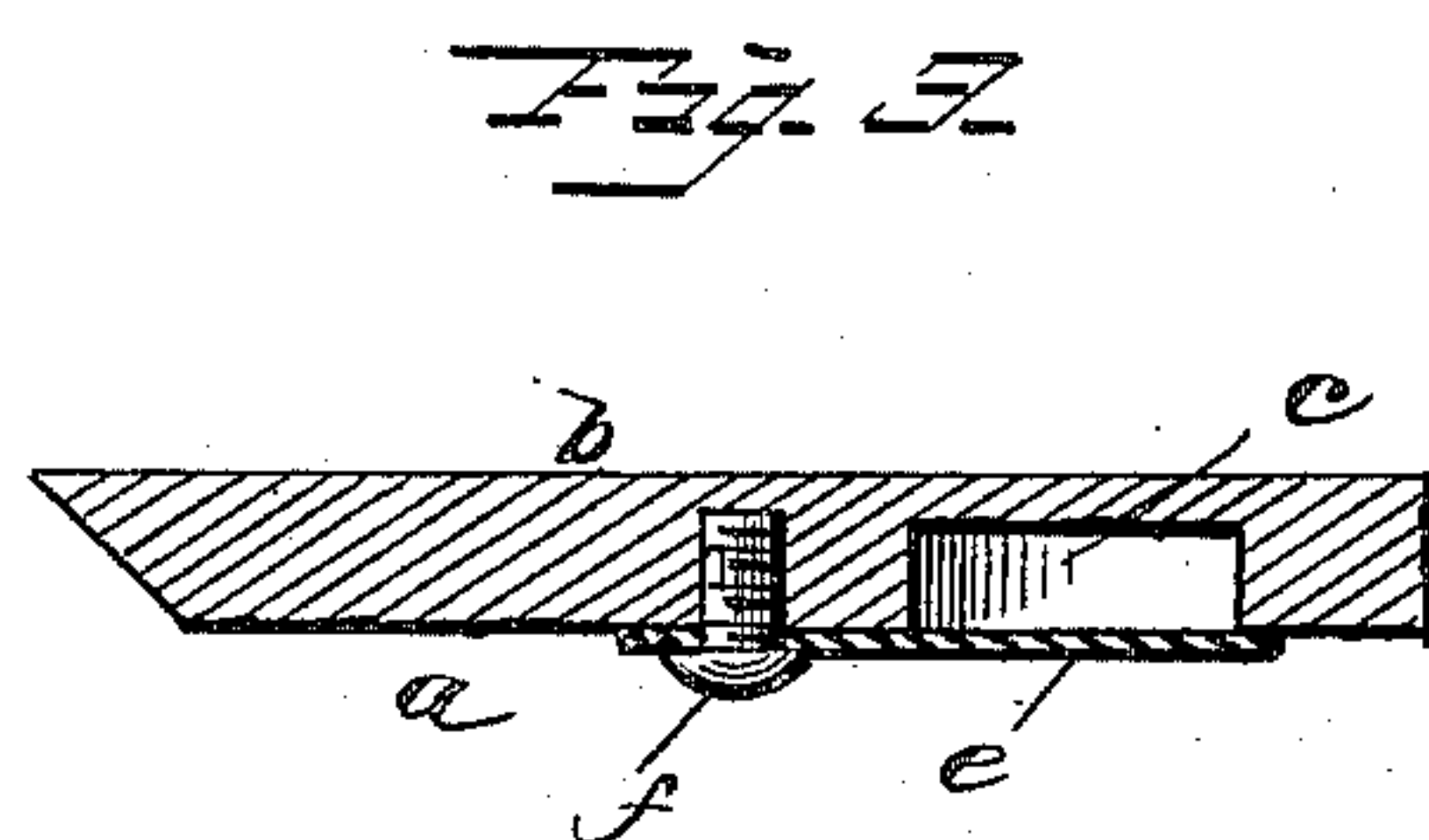
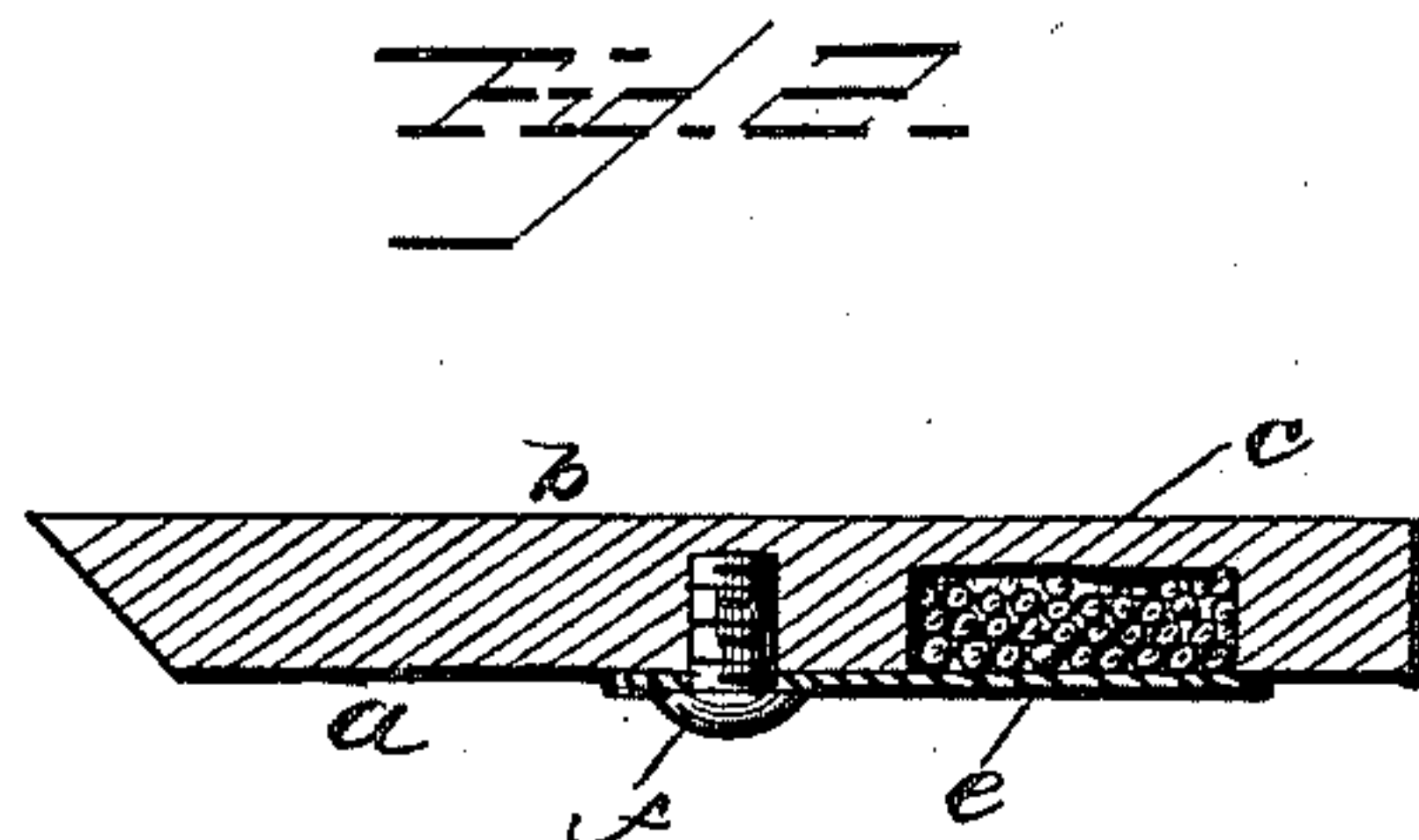
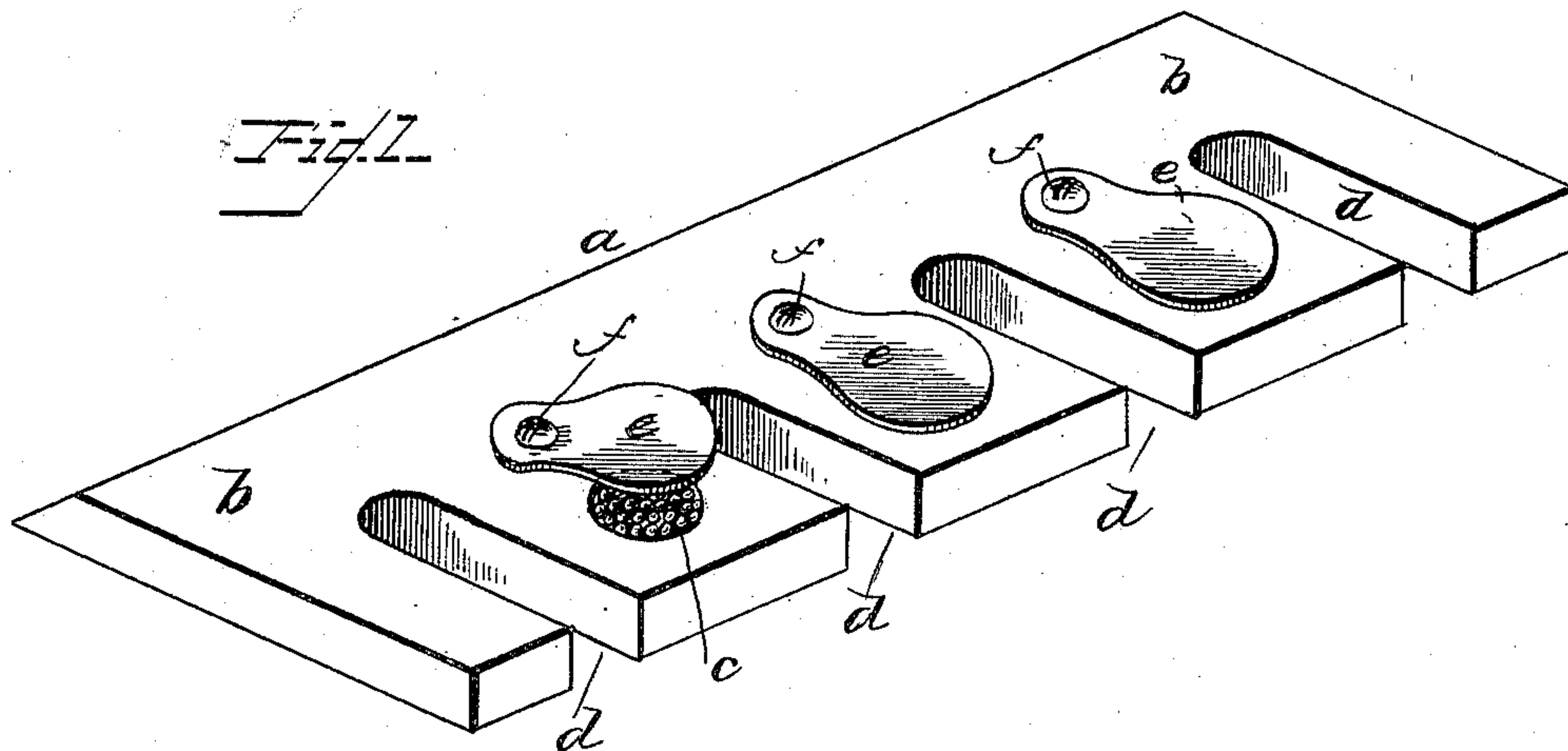


(No Model.)

P. McCOURT.  
PLANER KNIFE.

No. 299,153.

Patented May 27, 1884.



WITNESSES  
*F. L. Ostrand*  
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Attorneys

# UNITED STATES PATENT OFFICE.

PETER McCOURT, OF APPLETON, WISCONSIN, ASSIGNOR OF ONE-HALF TO  
JAMES H. SIMPSON, OF SAME PLACE.

## PLANER-KNIFE.

SPECIFICATION forming part of Letters Patent No. 299,153, dated May 27, 1884.

Application filed March 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, PETER McCOURT, a citizen of the United States, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and useful Planer-Knife, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to planer-knives; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claim.

Figure 1 is a view in perspective of a set of planer-knives embodying my improvements, showing one of the weight-receptacles open, the others being closed. Fig. 2 is a vertical sectional view through a filled receptacle, its cap and screw; and Fig. 3 is a similar view through an empty receptacle, its cap and securing-screw.

After grinding a set of planer-knives—such as are used on all wood-working machines—it will be found that the knives are of unequal weight, and run, as they are, at a high rate of speed, are out of balance and perform imperfect work. Heretofore this defect has been remedied and the knives made to balance either by the use of the file, an emery-wheel, or the drill, which is a very slow process at best, and ruins the knives before they are half worn out.

The object of my invention is to facilitate the balancing as well as to insure the accuracy of the balance of planer-knives by the means herein described, and illustrated in the accompanying drawings.

Referring by letter to the latter, *a* designates a set of planer-knives, which consists of two or more knives, *b*, each of which is provided in its under face with a weight-receptacle, *c*, between the slots *d*, which latter open out at the rear edge of the set of knives. These weight-receptacles *c* are about one inch in diameter and about five-sixteenths of an inch deep, the blade being, say, six-sixteenths of an

inch thick. Each weight-receptacle *c* is provided with a swinging cap, *e*, secured in place by a screw, *f*, so that by loosening the screw the cap may be turned to uncover the weight-receptacle, and turned back again to close it when desired. Knives of this construction, after having been ground, will be found to be of unequal weight, and consequently will run out of balance, just as others do, unless they are made to balance. I find the heaviest knife by placing the knives upon the scales, (the weight-receptacles having been filled with shot or other heavy metal,) and loosen the screw sufficiently to enable me to turn the cap to one side and remove the filling from the receptacle of the heaviest knife until both are of equal weight, then turn the cap back to place and tighten up the screw, thus completing the balancing of the knives; or, if preferred, the receptacles may be only partially filled, thus enabling the operator to take from the heavier knife and add to the lighter one, as the weight must be equally distributed throughout the entire length of the knife. This method of balancing can be used on all knives used on wood-working machines.

It is simple, cheap, and efficient, and knives thus constructed can be quickly and accurately balanced and their usefulness greatly prolonged over knives that have to be balanced in the old way.

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

A set of planer-knives provided between the slots forming the knife-sections with weight-receptacle, having swinging covers, and balancing material or filling in said receptacles, substantially as specified.

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

PETER McCOURT.

Witnesses:

JOS. KOFFIND,  
GEO. M. BARBER.