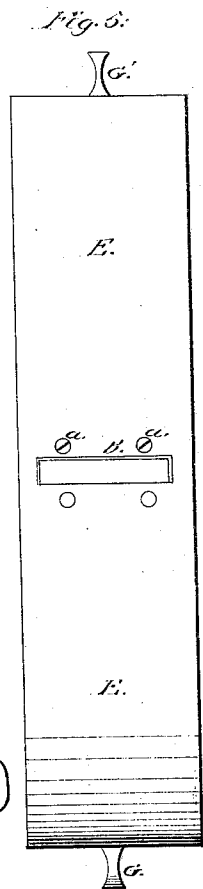
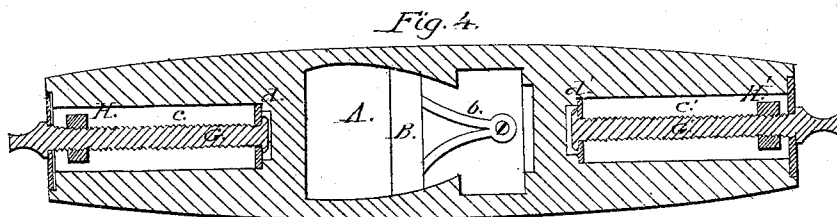
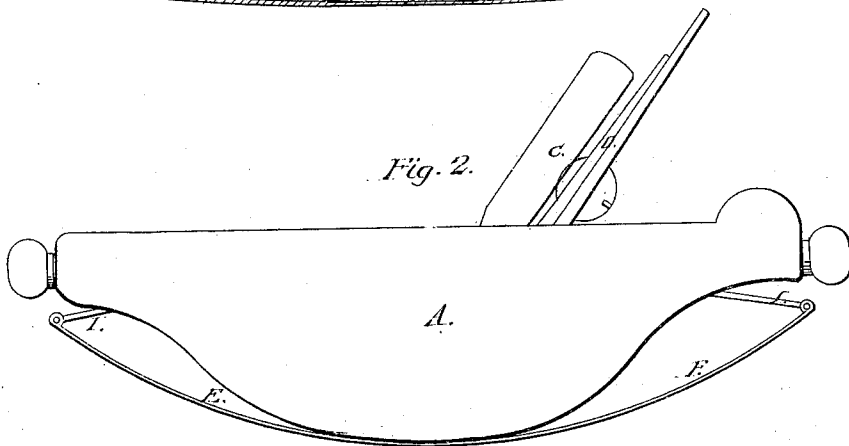
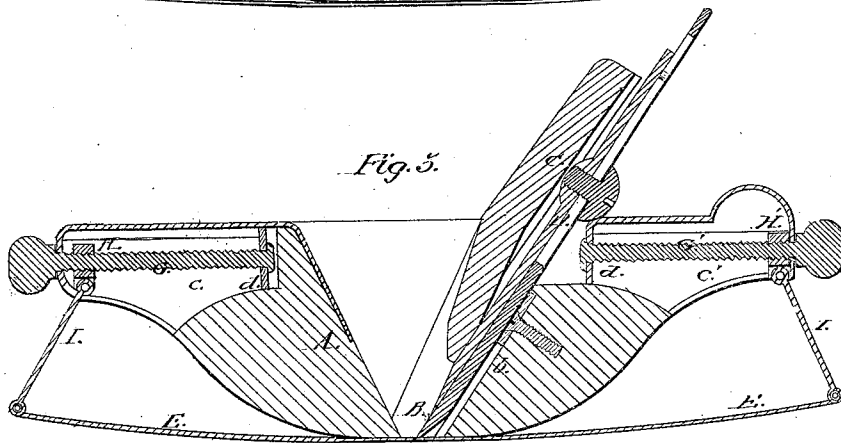
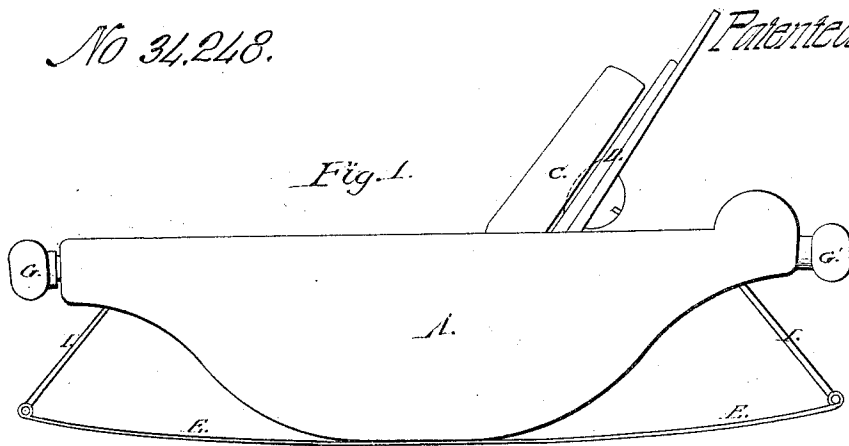


G. F. Evans, Bench Plane.

No 34,248.

Patented Jan. 28, 1882.



Witnesses:
Levi Whitman
Richard Evans

Inventor:
George F. Evans

UNITED STATES PATENT OFFICE.

GEORGE F. EVANS, OF NORWAY, MAINE.

IMPROVEMENT IN PLANE-STOCKS.

Specification forming part of Letters Patent No. 24,248, dated January 28, 1862.

To all whom it may concern:

Be it known that I, GEORGE F. EVANS, of Norway, in the county of Oxford and State of Maine, have invented a new and useful or Improved Plane; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes a side elevation; Fig. 2, a longitudinal section of my said plane prepared to operate upon a curved surface having a great degree of curvature; Fig. 3, a side elevation of such plane as prepared to plane on a surface having the slightest curvature; Fig. 4, a horizontal section of the plane, taken through the adjusting-screws and traversing nuts. Fig. 5 is a bottom view of the plane.

The object I had in view in making my invention was to supply a want which has long existed, viz: an instrument which would plane or smoothen any circular concave surface evenly and exactly.

The nature of my invention consists in an improved plane so constructed that its bearing surface or face may be readily adjusted to conform to circular surfaces of different degrees of curvature, whereby such circular parts may be as easily and smoothly planed as a plane surface can be by the ordinary straight-faced plane.

In the drawings, A denotes the stock or body of the plane, the same having a throat or shaving passage B formed vertically through it. In the said passage or throat the plane iron or cutter is secured by means of a wedge C and a cap-plate D in the ordinary manner. Instead of forming the lower face of the stock A as a straight or plane surface, I cause the same to be curved upward in manner as shown in the drawings.

To the lower face of the stock I fasten a

flat steel plate E by means of two screws *a a* and a bifurcated bar *b*, whose lower ends extend through the said plate and are riveted thereto, while its other end is secured by means of a screw to the rear part of the throat-passage.

Within the two ends of the stock A and extending longitudinally therein I form two chambers *c c'* for reception of two screws G G' and two traversing nuts H H', the said screws being supported in stationary bearings *d d'*, arranged in each end of each of the said chambers *c c'*. Each of the screws G carries a traversing nut H of a rectangular shape, the said nut being jointed or pivoted at its lower edge with a connecting-rod I, whose lower end is in turn connected or jointed to the plate E', the length of the connecting-rods being such as to allow the plate E, when the nuts H H' are at their greatest point of outward extension, to assume or stand in or nearly in a horizontal plane. The screws G or G' have no longitudinal movement, but are free to revolve on their axes, so as to cause the nuts H H' to traverse the whole length of their chambers *c c'*.

A plane constructed in the above-described improved manner can be readily adapted or adjusted to plane or reduce any circular concave piece of wood by simply turning the two screws G G' in the proper direction.

Having described my invention, I claim—

My improved plane, having its body A, its bearing-plate E, its screws G G', traversing nuts H H', and connecting-rods I I, constructed and arranged in relation to each other and so as to operate together, as set forth.

GEORGE F. EVANS.

Witnesses:

LEVI WHITMAN,
RICHARD EVANS.