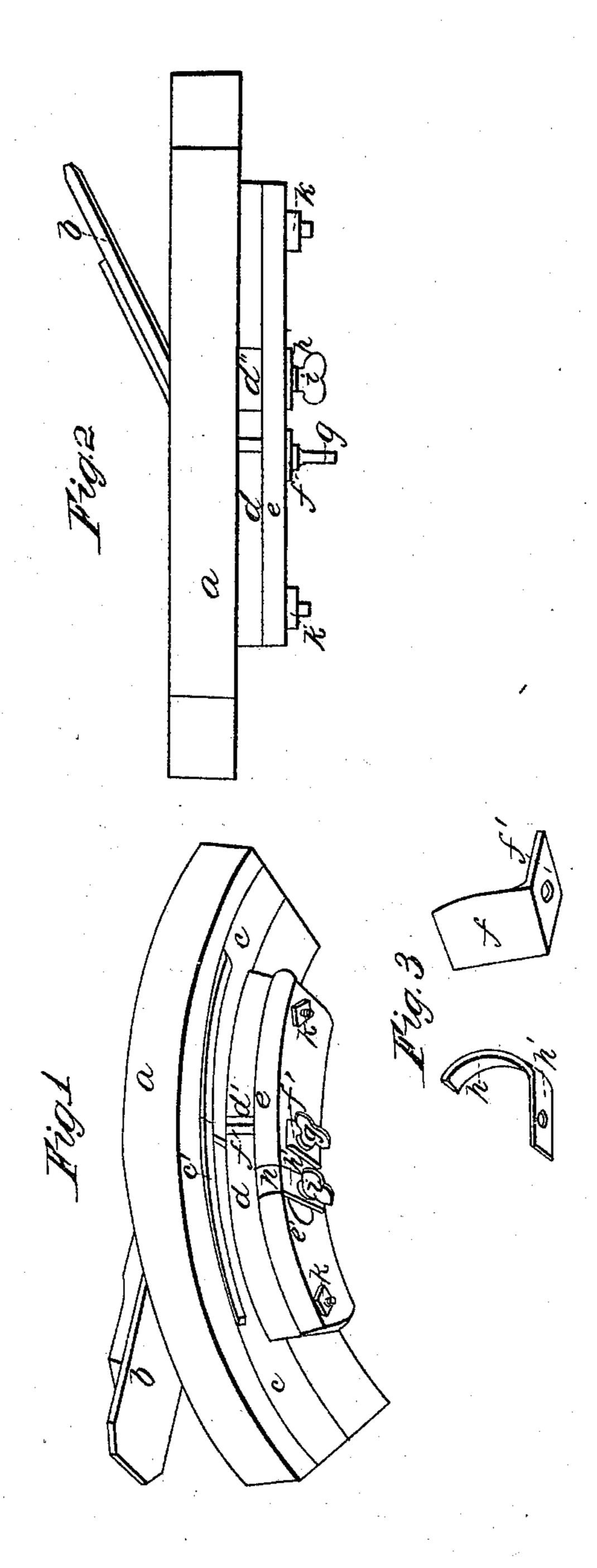
S. Widerman,

Crozing Stares.

Patenteal Apr. 23,1842.



## UNITED STATES PATENT OFFICE.

SAMUEL WIDERMAN, OF BALTIMORE COUNTY, MARYLAND.

MACHINE FOR CHAMFERING, BEVELING, AND HOWELING BARRELS, &c.

Specification of Letters Fatent No. 2,583, dated April 23, 1842.

To all whom it may concern:

Be it known that I, Samuel Widerman, of the county of Baltimore and State of Maryland, have invented a New and Useful Tool for Leveling, Chamfering, and Howeling Barrels at One Operation, and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view; Fig. 2,

a side elevation; Fig. 3, bits detached.

The stock (a) is formed similar to the common block plane used by coopers into 15 the face of which is inserted an iron plate (c) of the same curve as the stock along the outer edge of this plate, a small projecting rib (c') is cast extending nearly to each end, and, opposite to it on the other edge of the 20 plate a flanch (d) projects at an angle of about 80° from the face of the stock, the convex surface of it being smoothed to form the face of the chamfer; on the outer edge of this flanch is affixed a howel stock (e) 25 supported on the back by a projection from the stock (a) to which it is fastened by means of bolts (k) running through them. The bit (b) is inserted into the stock (a)in the same way as the common block plane, 30 a throat being cut through the plate (c); just before this throat a slot (d') is cut the whole width of the flanch (d); opposite to

this slot a mortise is made through the howel stock so that when a straight bit (f)is put into the mortise it will extend through 35 the slot (d') and present its cutting edge beyond the flanch; the shoulder of this bit (f') is turned at right angles to its plane and lays against the lower edge of the howel stock, where it is secured by a thumb screw 40 (g), through both a plan is cut away in the projection behind this bit between the howel and plane stock at d'' for the chips to escape. The transverse section of the howel stock on the convex fan is of the same form 45 as the howel desired to be made and a bit (h) made of a shape suitable to fit this curve is fastened on by means of a shoulder (h')made parallel to the lower side of the stock through which a thumb screw (i) passes in 50 the same manner as the chamfer bit before described; the chips from this bit fall down through a recess (e') made in from the lower side of the howel stock.

What I claim as my invention, and desire 55 to secure by Letters Patent, is—

The combination of the chamfering and howeling apparatus with the block plane in the manner and for the purpose herein described.

SAMUEL WIDERMAN.

Witnesses:

JOHN REED, WILLIAM WIDERMAN.