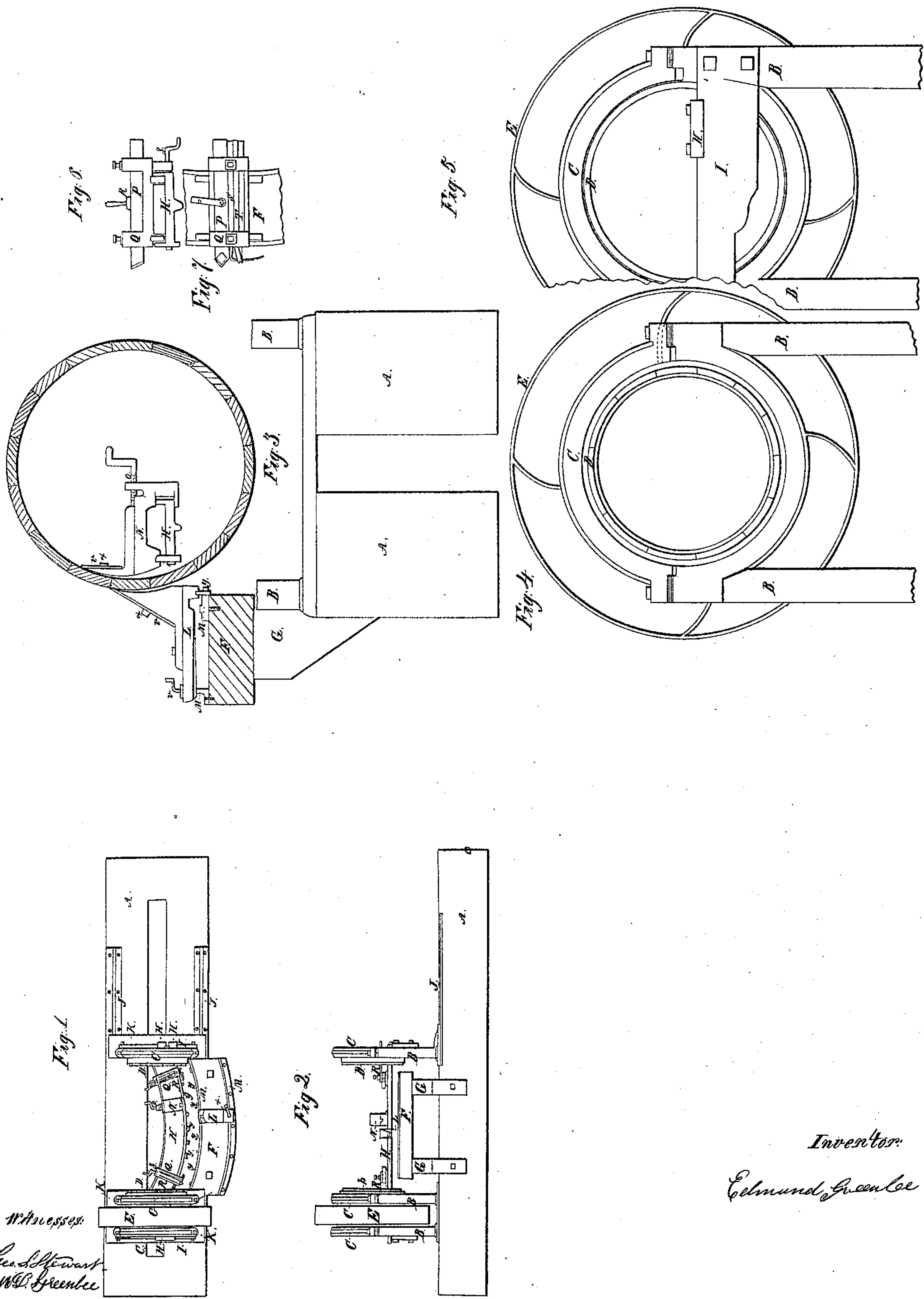


*E. Greenlee,
Crozing Stares.*

N^o 30,811.

Patented Dec. 4, 1860.



Inventor:

Edmund Greenlee

UNITED STATES PATENT OFFICE.

EDMUND GREENLEE, OF RUNDELLS P. O., CRAWFORD COUNTY, PENNSYLVANIA.

MACHINE FOR FINISHING THE INSIDE OF BARRELS.

Specification of Letters Patent No. 30,811, dated December 4, 1860.

To all whom it may concern:

Be it known that I, EDMUND GREENLEE, of Rundells P. O., county of Crawford, State of Pennsylvania, have invented a new and useful Machine for Turning the Inside, Cutting the Croze, and Chamfering Butter Firkins or other Hollow Ware; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is the top view. Fig. 2 a side elevation. Fig. 3 a cross section. Fig. 4 an end view of the hollow mandrel driving pulley and the box in which the mandrel turns. Fig. 5 an end view showing the manner of attaching the slide rest for working the inside. Figs. 6 and 7 show the tool used for cutting the croze making the bevel and finishing the end of the vessel.

The letters refer to the same parts on each figure.

A is the frame of the machine. The posts B stand on the iron plates K. The posts support the boxes or rims in which the hollow mandrel D turns.

C is the boxes or rims of the hollow mandrel.

D is the hollow mandrels, made the size of the end of the vessel to be turned, and fitted with teeth to hold it to its place.

E is the band pulley which gives motion to the machine.

F is the slide rest on which the turning tool L moves and is supported by the supports G, fastened to the frame A.

H is a cast-iron rest on which the tool N moves. It is fastened to the cross piece I.

J is the ways on which tail end slides, so as to admit of a vessel being put on or taken off. K is the plates on which the posts stand.

L is the tool for turning the outside and is regulated by the set screw *v* and slides on the rest F.

M shows the guides on which the tool slides and is guided by the inside one which is made of steel and can be set to any circle by the screws Y.

N is the tool for turning the inside and moves on the iron rest H and is regulated by the screw O and is guided by the inside steel slide which is set to the required curve by the screws Y.

P is the tool which chamfers howels and cuts the croze of the end of the vessel and works in the frame Q by means of the lever R and is fastened to the slide rest H by the eccentric crank Z.

Q is the frame of the tool through which the cutting tool works, as shown in Fig. 6.

R is a short lever which moves the cutters of the tool P back and forward as required.

S is the part of the tool P which does the howeling; T the part which cuts the croze.

V shows the bits fastened to the tool by the screw X; *v* the set screw to regulate the tool L.

Y shows the screws that holds the guides to the right curve.

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

The machine constructed as described having mandrels so as to admit a rest through the center, with tools to howel, bevel, cut the croze, and turn the inside in the manner described or any other substantially the same and which produces the same results.

EDMUND GREENLEE.

Witnesses:

GEO. S. STEUART,

C. W. COLE.