

(No Model.)

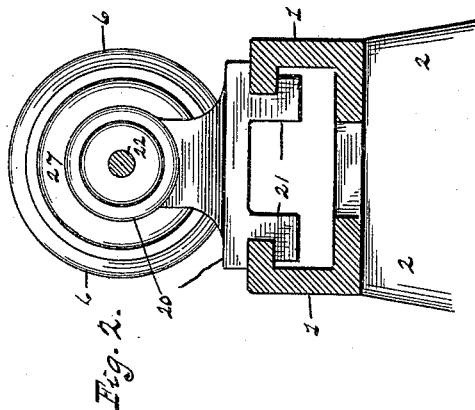
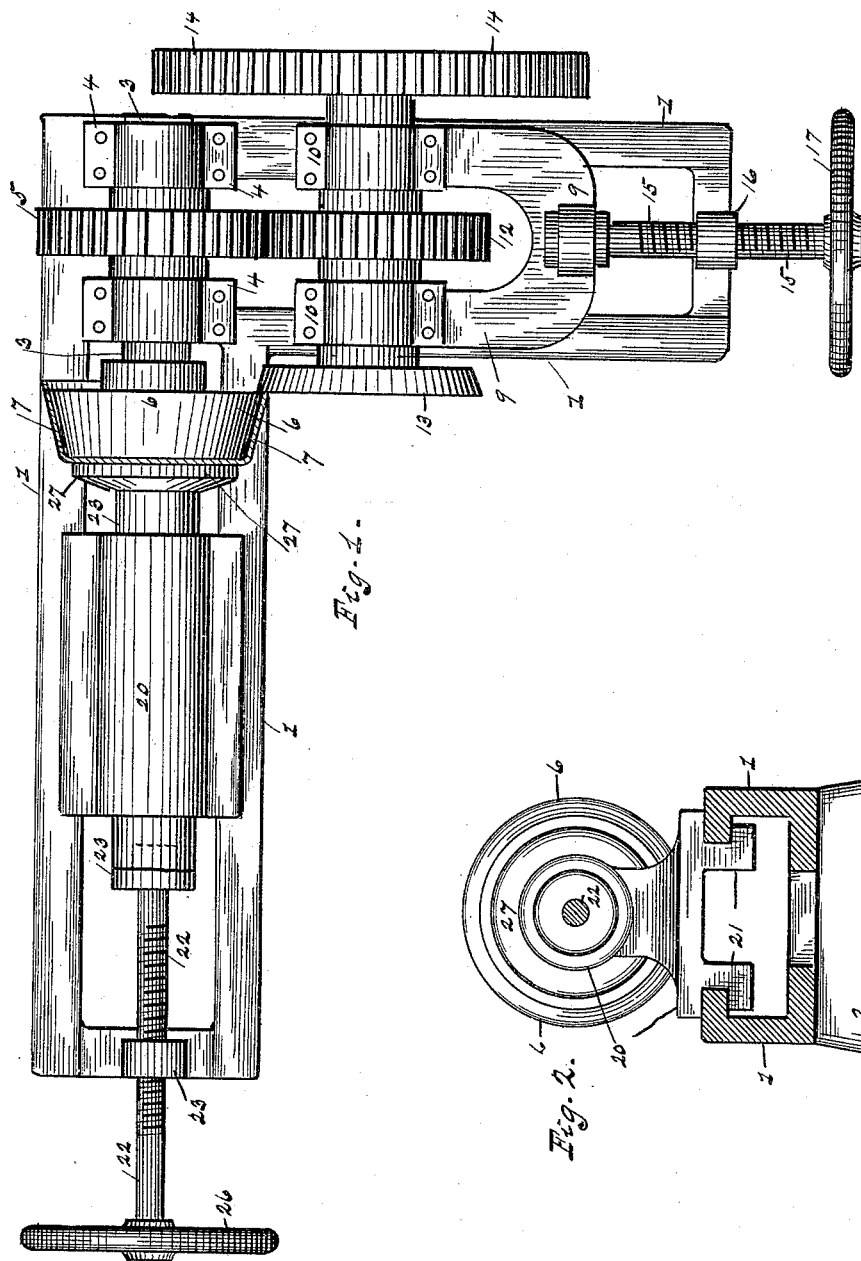
2 Sheets—Sheet 1.

J. T. DUFF.

MACHINE FOR TRIMMING THE EDGES OF HOLLOW WARE.

No. 419,755.

Patented Jan. 21, 1890.



Witnesses:
H. E. Harrison.
J. A. Herron

Inventor.
John T. Duff

(No Model.)

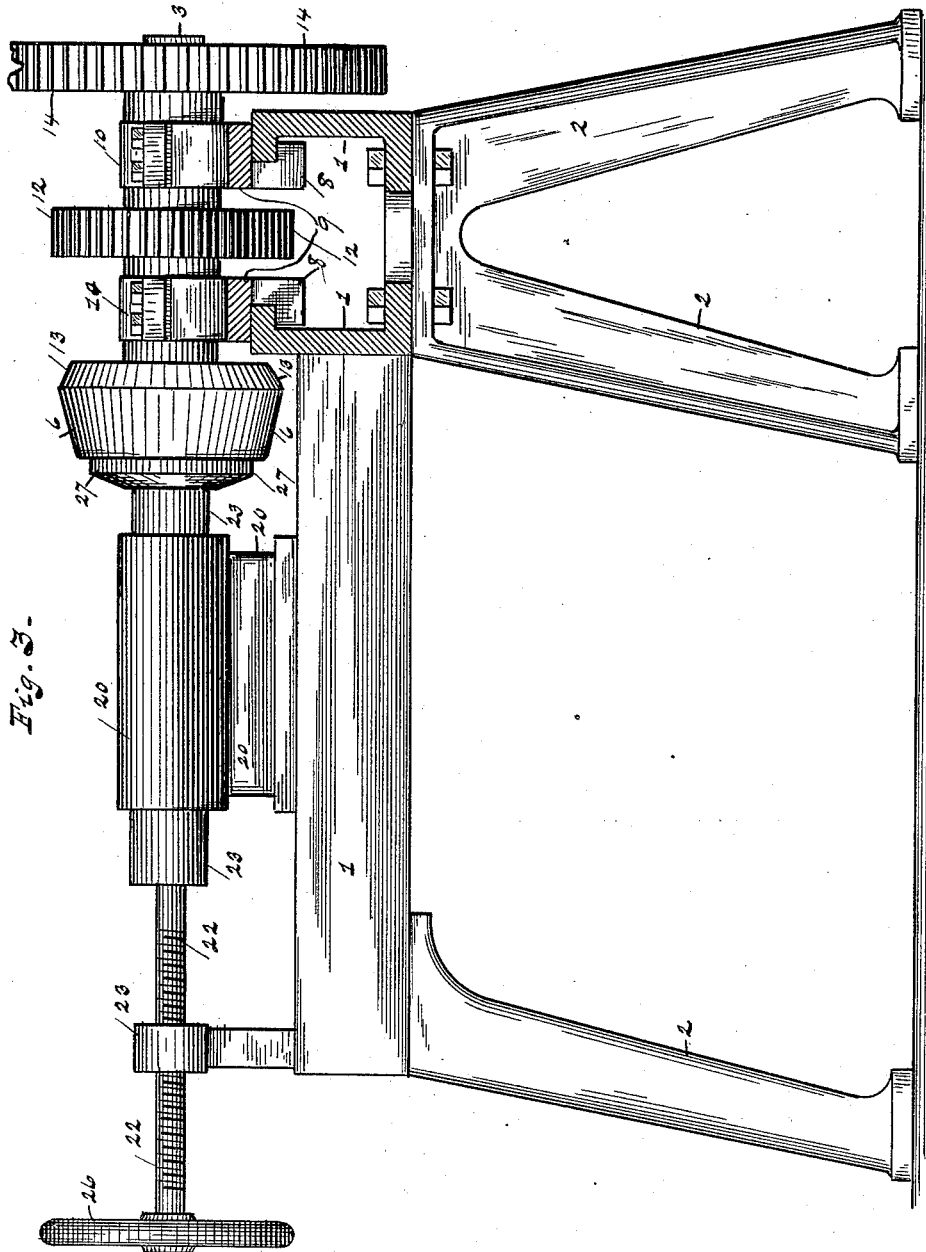
2 Sheets—Sheet 2.

J. T. DUFF.

MACHINE FOR TRIMMING THE EDGES OF HOLLOW WARE.

No. 419,755.

Patented Jan. 21, 1890.



WITNESSES:
M. E. Harrison.
J. A. Herron

INVENTOR.
John T. Duff

UNITED STATES PATENT OFFICE.

JOHN T. DUFF, OF PITTSBURG, PENNSYLVANIA.

MACHINE FOR TRIMMING THE EDGES OF HOLLOW WARE.

SPECIFICATION forming part of Letters Patent No. 419,755, dated January 21, 1890.

Application filed October 1, 1889. Serial No. 325,699. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. DUFF, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Trimming the Edges of Hollow Ware; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved machine for trimming the edges of hollow ware; and it consists in are volving form, over which the piece of ware is placed, a means for holding the said ware on the form, and a means for trimming the edge of the same, together with certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a plan view of my improved machine for trimming hollow ware, which is constructed in accordance with my invention. Fig. 2 is an end sectional elevation of the clamping-carriage. Fig. 3 is a side elevation of my improved machine, partly in section.

To put my invention into practice, I provide an L-shaped frame 1, of suitable size and form of construction, and mount the same on proper standards 2. At or about the center of this frame 1 is a stout shaft 3, secured in bearings 4 and carrying a pinion 5, provided with teeth of a greater length than those in common use. Attached to the inner end of this shaft 3 is a combined form or holder and shear-blade 6. This holder 6 is the exact size and shape as the inside of the piece of ware 7 to be trimmed.

Mounted on suitable slides 8 on the front wing of the frame 1 is a carriage 9, capable of moving along the frame 1 in a horizontal direction. This carriage 9 is provided with suitable bearings 10, which support a transverse shaft, on which is mounted a small toothed wheel or pinion 12, of the same size and style as the pinion 5, before described. At one end of this shaft is a rotary disk or shear-blade 13 and on the other extremity a

large gear-wheel 14, to which the power for operating the machine is applied.

Loosely attached to the front end of the carriage 9 is a threaded shaft 15, which operates through a stationary nut 16, secured to the frame 1. This shaft 15 is provided with a hand-wheel 17, and is used for adjusting the shear-blade 13 toward or away from the combined form and shear-blade 6. Mounted on the other angle of the frame 1 is a carriage 20, which may be moved toward or away from the holder 6 by means of the slides 21, and a threaded shaft 22, loosely attached to a strong shaft 23, mounted in the carriage 20, operating in a stationary nut 23, as before described. This shaft 23 revolves loosely in its bearings, and is provided on its forward or inner end with a clamping-disk 27, which, when forced against the bottom of the piece of ware 7 on the holder 6, will prevent the same from moving.

In operation, when this class of hollow ware has been rolled, the edges are sometimes ragged or uneven. Therefore the necessity of this machine is obvious.

To trim the edges of a piece of hollow ware 7, the combined holder and shear-blade 6 must fit the inner contour of the piece perfectly. The piece 7 is placed on the holder 6 by moving the clamp 27 and carriage 20 back by means of the screw-shaft 22. The piece is placed in position and the clamping-disk 27 brought tightly against the base of the same. The shears being in motion and the table or carriage 9 moved a short distance back or away from the holder 6, the hand-wheel 17 is now revolved, which moves the shear-blade 13 against the piece 7 and gradually shears the uneven edge from the piece. The carriage 20 is now brought back, which releases the clamp 27 from the piece 7, and the same is removed. The other carriage 9 is moved back to its original position in order to place another piece on the holder 6, and the same operation continued.

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

1. The herein-described trimming-machine for hollow ware, consisting of the combined

holder and rotary shear-blade 6, mounted on
a suitable shaft 3, the clamping-disk 27, and
a means for operating the same toward or
away from the said holder 6, the shear-blade
5 13, mounted on a shaft and geared to the shaft
3, carrying the holder 6, and the carriage 9, for
moving the said shear 13 toward or away from
the holder 6, whereby the piece of ware may
be placed in position and the shearing of the
10 piece gradually accomplished.

2. In combination with a machine such as
described, the combined holder 6, one edge of
which is used as a shear-blade, a means for

holding the piece of ware firmly against the
same, and a rotary shear-blade 13, and a 15
means for moving the same toward and away
from the said combined holder and shear, as
and for the purpose specified.

In testimony that I claim the foregoing I
hereunto affix my signature this 23d day of 20
September, A. D. 1889.

JOHN T. DUFF. [L. S.]

In presence of—

M. E. HARRISON,
E. R. EDMUNDSON.