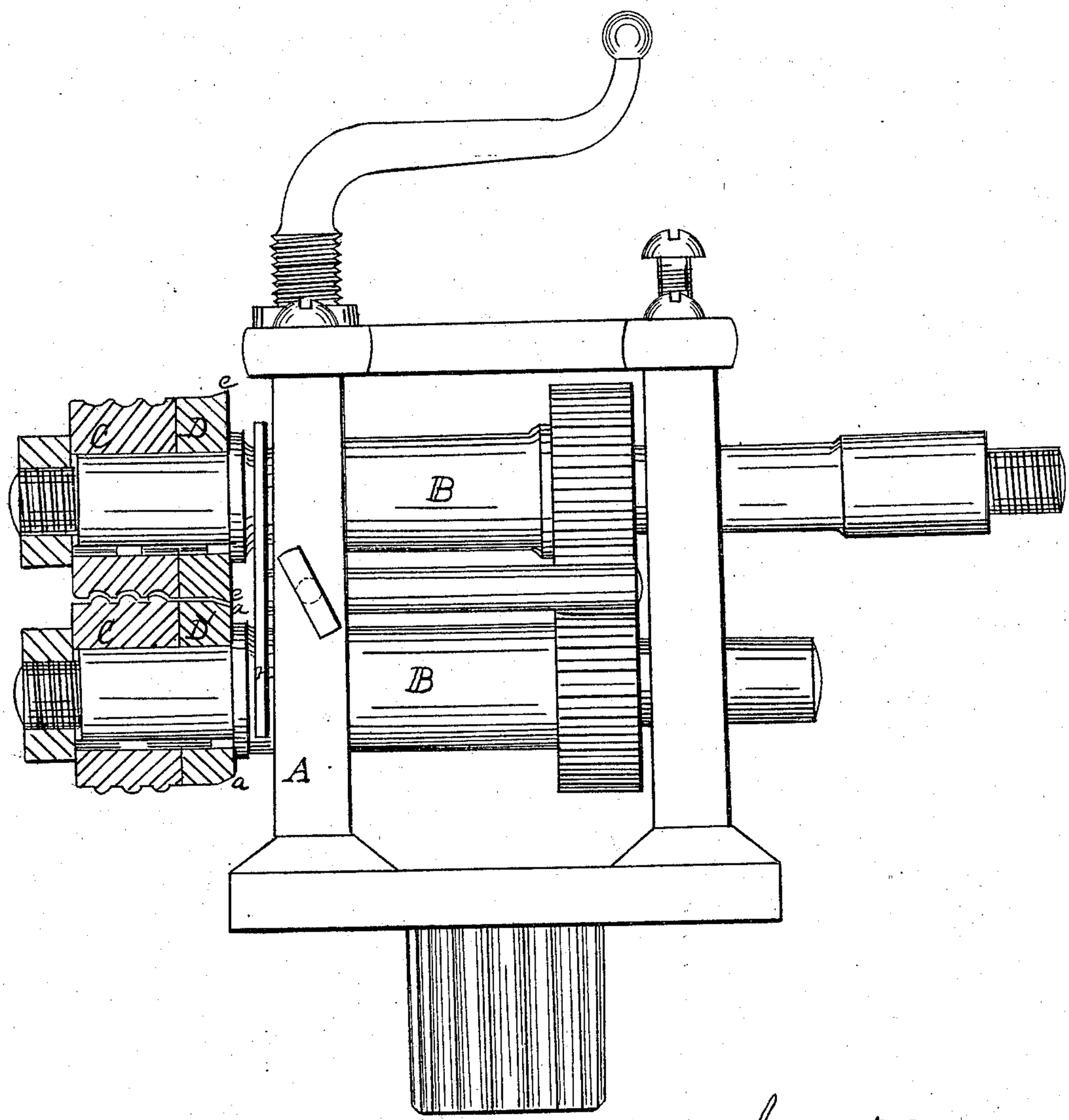
F. S. DE WITT.

SWAGING MACHINE.

No. 79,735. Patented July 7, 1868.



Witnesses
Chas. Hadaway
Wm. T. Hutchinson

Inventor,
F. S. De Witt
By Wm. S. Longsborough
Atty

United States Patent Office.

FREDERICK S. DE WITT, OF ROCHESTER, NEW YORK.

Letters Patent No. 79,735, *dated July* 7, 1868.

IMPROVEMENT IN SWAGING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, FREDERICK S. DE WITT, of the city of Rochester, in the State of New York, have invented a new and useful Improved Tinners' Swage; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

The figure is a side elevation.

The nature of this invention will be understood from the drawings and specification.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

To a suitable frame, A, shafts B are fitted, on one of which the common swaging-dies C, for making ridges on the ends of stove or other pipes, are placed. On the inside of the dies C, I place rings, D D′, one of which, D′, is bevelled on its inner edge, *a*, to contract or increase the size of the edge of the pipe. The other, D, has a rim, *e*, on its inner edge, bevelled to suit the bevel of the edge *a* of D′. This arrangement makes the space between the rings D and D′ and the ridge-swaging dies C the shape required to be given to the end of the pipe, and forms the ridges necessary to prevent the pieces from slipping, one over the other. The swaging edges of pipes inward and outward, for the purpose of enlarging or contracting the edge, so that they can be easily joined, has heretofore been done by hand, which makes uneven work, and consequently an imperfect joint. But my process makes smooth, even work. Between the swaging-rings D D′ and the frame A, I put transverse adjustable guide, H, up to which the pipe is put while being swaged, to give the edge any required length of bevel, and also the distance the ridges shall be formed from the end of the pipe. The dies C may be formed with their inner edges having the same shape of the edges of the dies D D′, but I prefer making the separate rings, as it allows the dies D D′ to be substituted for others having different bevels, without changing the edge-swaging dies C.

If it is required to increase the size of the diameter of the edge of the pipe, the dies D D′ must be substituted, the one for the other.

The operation of this device is such that the pipe being placed between the dies up to the guide H, the lower being inside the pipe, the upper one is pressed down on it by a screw, as in common swaging-tools, and the shaft B being revolved, it forms the portion of pipe between them into the shape of the space between the dies *i*, forming the ridges and contracting the edge of the pipe.

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

The bevelling sections D and D′ of the swaging-rollers C of tinners' tools, in connection with a gauge, H, arranged and operating substantially in the manner and for the purposes herein shown and described.

F. S. DE WITT.

Witnesses:

JAS. LORENZO GAGE,

FRED. A. HATCH.