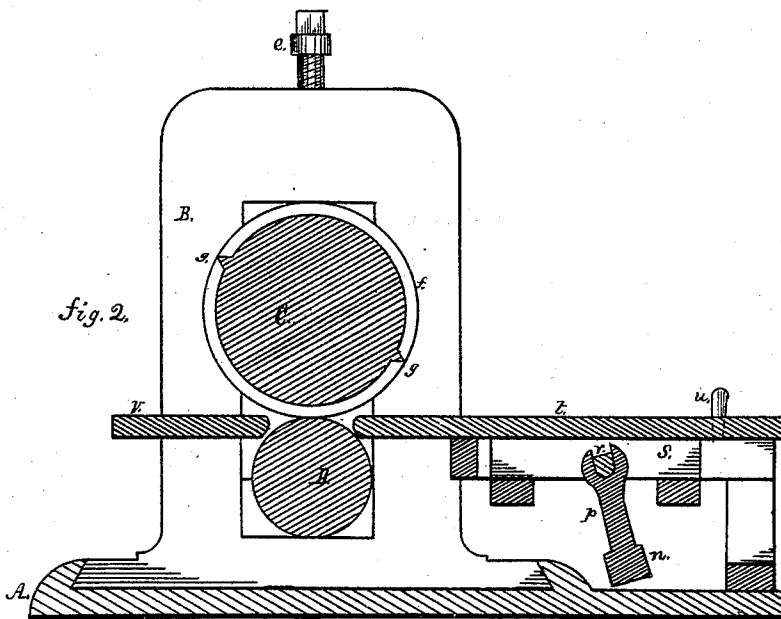
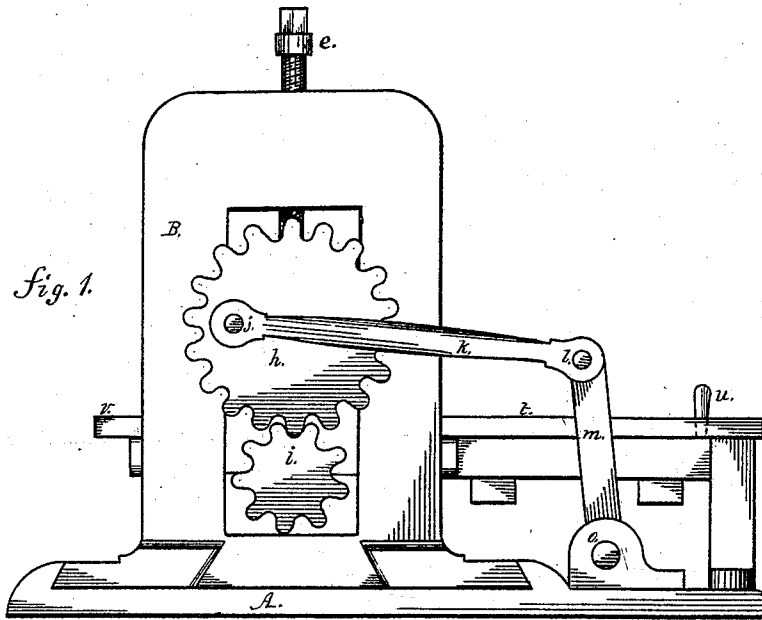


G. NEW, G. EARDLEY & W. TALBOT.

ROTARY METAL SHEARING MACHINE.

No. 171,949.

Patented Jan. 11, 1876.



Witnesses.
D. H. Rice
J. S. Thompson.

Inventors.
George New
George Eardley
William Talbot
By A. C. Johnston
their Attorney.

2 Sheets—Sheet 2.

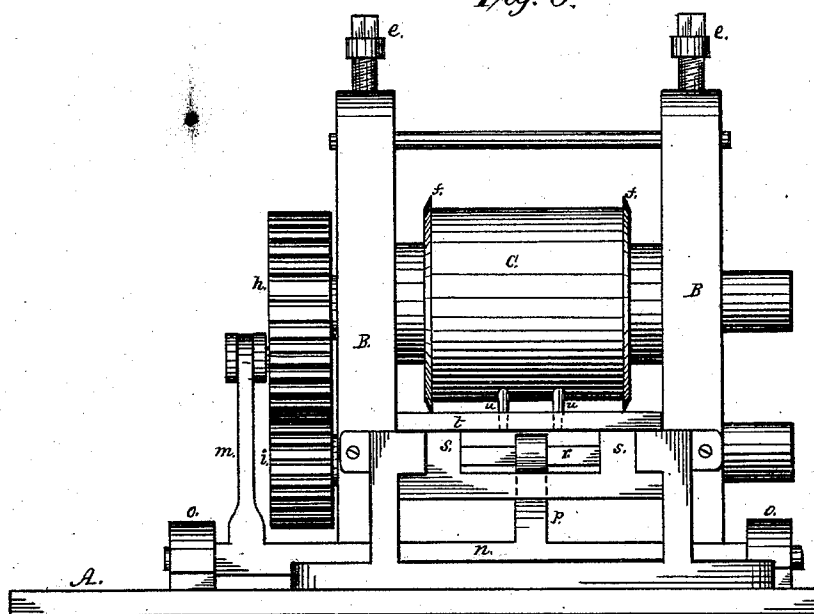
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Fig. 3.



Witnesses.
D. A. K. Rice
J. E. Thompson.

Inventors:
George New
George Eardley
William Talbot
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Their Attorney.

UNITED STATES PATENT OFFICE

GEORGE NEW, GEORGE EARDLEY, AND WILLIAM TALBOT, OF PITTSBURG,
PENNSYLVANIA.

IMPROVEMENT IN ROTARY METAL-SHEARING MACHINES.

Specification forming part of Letters Patent No. **171,949**, dated January 11, 1876; application filed
November 22, 1875.

To all whom it may concern:

Be it known that we, GEORGE NEW, GEORGE EARDLEY, and WILLIAM TALBOT, all of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Rotary Shears; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of our invention consists in rotary shears, consisting of a pair of rolls, the upper roll being of greater diameter than the lower roll, and furnished with cutters running lengthwise of it, also cutters placed upon the ends of it, said rolls being geared together and combined with gages and feed-table, operated through the medium of levers connected with the driving-gear of the rolls.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

In the drawings, which form a part of our specification, Figure 1 is a side elevation of our improvement in rotary shears. Fig. 2 is a vertical section of the same. Fig. 3 is an end view of the same.

A represents the base of the machine; B, the housings of the rolls, the journals of which are placed in suitable bearings, and the cutters of the upper roll C made to impinge on the lower roll D through the medium of adjusting-screws *e*. On the ends of the rolls C are secured cutters *f*, and lengthwise of the roll are secured cutters *g*. On the outer ends of the rolls C and D are wheels *h* and *i*, which mesh into each other, and are used for the purpose of giving the desired travel to the rolls. To the wheel *h* at, *j*, is pivoted a connecting-rod, *k*, which is connected to a horizontal shaft, *n*, having its axis

in bearings *o*. From the shaft *n* projects a lever, *p*, the upper end of which is forked and straddles a cross-bar, *r*, secured between slides *s* of a table, *t*, furnished with a series of openings for the insertion of guide-pins *u*. *v* represents a receiving-table.

The operation of our improved machine is as follows: The sheet of iron is placed upon the table *t*, with one end of the sheet pressing against the guide-pins *u*. Motion being imparted to the rolls C and D, the connecting-rod *k*, operating the levers *m* and *p*, will impart to the table *t* a reciprocating motion, and as the table moves back from the rolls the operator places one end of the sheet to be sheared against the pins *u*, and the table, in its movement toward the rolls, will carry the sheet to the cutters *f*, and the rolls C and D, impinging upon the sheet, will draw it forward, and the cutters *g*, coming in contact with it, will shear it into the desired length, the rolls finally delivering the sheet upon the table *v*. The lengths of the sheet will depend upon the number of cutters *g*, and the width of the sheet will be determined by the distance between the cutters *f*.

What we claim as of our invention is—

The roll C, furnished with cutters *f* and *g*, in combination with the roll B and reciprocating table *t*, having detachable guide-pins *u*, all being constructed, arranged, and operating, with relation to each other, substantially as herein described and set forth.

In witness whereof we hereunto set our hands.

GEORGE NEW.
GEORGE EARDLEY.
WILLIAM TALBOT.

Witnesses:

A. C. JOHNSTON,
D. I. K. RINE.